

2011 Technology Management Guide Version 3.0

A Comprehensive Management Guide for Hampton's Technology Investments

Updated—February 2011 Printed Version By the City of Hampton's Department of Information Technology 22 Lincoln Street Hampton, VA 23669





2011 Technology Management Guide

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Our Mission



Guide Overview

Technologists have brought us the "new economy" – promising to reshape the business land-scape with lightning speed. Recent history has shown however, that technical revolutions do not occur without considerable losses and failures. Technology has the potential to revolutionize and transform the way we do business, but with considerable challenges. The potential of technology presents both opportunities and perils. The key to capitalizing on those opportunities while minimizing the perils is effective planning.

IT spending now accounts for a significant portion of every organization's total spending, whether government or private sector. Furthermore, business leaders the world over have recognized that proper investment in technology can make or break them. Technology planning is, in fact, critical to the success of organizations worldwide.

It is imperative for the City to thoughtfully plan technology investments to maximize and optimize those investments and to leverage technology in ways that will create more effective and efficient government and encourage technology-based enterprises to come to Hampton.

What should the City be doing in regards to technology? Broadly speaking, the City must focus on projects and programs that will expand our communications infrastructure, widen the availability of information across the organization, streamline bureaucratic processes, allow easy access to data and services and enable new customer service initiatives. Emphasis must also be placed on effective project management -- ensuring that technology projects are managed effectively and without cost overruns, that projects are aligned with the City's strategic goals and that a proper level of oversight is maintained for IT investments. Towards this end, technology planning seeks to lay a foundation for effective technology management.

This document is a summary of the IT plans, guidelines, standards and policies of the City organization and is intended as an aid for top and mid-level managers, technical staff, end-users and other decision-makers in their IT planning and management efforts. This guide is divided into 9, sections

- 1. Foundation
- 2. Fundamental Principals
- 3. Organization and Governance
- 4. Technology Funding
- 5. Strategic Direction
- 6. Investment Priorities
- 7. Enterprise Architecture
- 8. Policies & Procedures
- 9. Appendices





Section 1. Foundation

The City's information technology foundation can be categorized into five fundamental areas: goals, people, vendor service/hardware/software, policies and projects.

- The IT goals for the organization indicate what is expected from technical investments and are derived from business needs and expectations.
- People are, of course, the technical specialists, policy groups and functional work teams across the organization.
- Vendor services, hardware and software are the basic tangible building blocks of the IT infrastructure.
- Policies, procedures and standards are the guidelines that enable effective and thoughtful execution of IT initiatives.
- Projects are the tactical execution of business plans.





Section 2. Fundamental Principals of IT

All technology use should be guided by the following fundamental principles:

- Our ultimate goal is to provide citizens, the business community and City employees with timely, appropriate and convenient access to information and services through the use of technology.
- Business needs drive information technology solutions. Strategic partnerships will be established so that the benefits of IT are leveraged to maximize the productivity of City employees and improve customer services.
- Evaluate business processes for redesign opportunities before automating them. Use new technologies to make new business methods a reality. Exploit functional commonality across organizational boundaries.
- Manage IT as an investment:
 - Annually allocate funds sufficient to cover depreciation to replace systems and equipment before life-cycle end. Address project and infrastructure requirements through a multi-year planning and funding strategy.
 - Limit resources dedicated to "legacy systems" hardware and software approaching the end of its useful life to absolutely essential or mandated changes. Designate systems as "legacy" and schedule their replacement. Focus investments toward the future.
 - Invest in education and training to ensure the technical staffs in IT and user departments understand and can apply current and future technologies.





Section 2. Fundamental Principals of IT

- Implement contemporary, but proven, technologies. The City will stay abreast of emerging trends through an ongoing program of technology evaluation. New technologies often will be introduced through pilot projects where both the automation and its business benefits and costs can be evaluated prior to any full-scale adoption.
- Hardware and software will adhere to open (vendor-independent) standards and minimize proprietary solutions whenever possible. This approach will promote flexibility, inter-operability, cost effectiveness, and mitigate the risk of dependence on individual vendors.
- Manage the enterprise network as a fundamental building block of the City's IT architecture. The network will connect modern workstations and servers; will provide both internal and external connectivity; will be flexible, expandable, and maintainable; be fully integrated using open standards and capable of providing for the free movement of business data in all forms.
- Approach technology undertakings as a partnership of IT and departments providing for a combination of centralized and distributed implementation. Combine the responsibility and knowledge of IT, departmental staff, as well as outside contract support, within a consistent framework of City IT standards. Establish strategic cooperative arrangements with public and private enterprises to extend limited internal resources.
- Emphasize the purchase and integration of top quality, commercial off the shelf (COTS) software with minimal customization to speed the delivery of new business applications. This will require redesigning some existing work processes to be compatible with the off-the-shelf software packages. Utilize modern, efficient methods and laborsaving tools in a cooperative application development environment.
- Capture data once in order to avoid cost, duplication of effort and potential for error and share the data whenever possible. Establish and use standard data formats and repositories to the fullest extent.





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The City promotes a philosophy of collaboration and cooperation in is decision making process across departmental lines. Information Technology is a cross functional support service that is best managed by establishing and supporting a governance model that includes departmental users in its management and oversight of IT resources.

IT "governance" refers to the way in which technology policies and decisions are made. In this context, governance also refers to the entire organization and not a single department or the Department of Information Technology.

"Information technology" refers to the computer systems, networks, technology services, hardware and software that compose the city's various processing and information gathering systems.

Information Technology Governance Board of Directors

The City of Hampton uses an executive steering committee known as the Information Technology Governance Board of Directors. The IT Governance Board was developed in 1998 to provide leadership in the planning, development and use of new technology. Specific duties include the following:

- Recommend and approve technology standards
- Recommend and approve technology policy
- Develop an annual information technology budget and implementation plan
- Review Department of Information Technology plans and provide advice and guidance

Manage technology funds such as the Innovations Pool and Technology Replacement Fund.

The IT Governance Board is a group made up of department heads from across the organization. The City Manager appoints department heads to the IT Board.

Board Membership

- City Manager's Office
- Budget
- Finance
- Assessor
- Police
- Fire and EMS
- Parks and Recreation
- Planning
- Public Works
- Human Resources
- Community and International Relations

Our Mission



In keeping with the collaborative culture of the City of Hampton, the IT Board uses a consensus decision-making model.

The IT Board meets on an as-needed basis. The Director of the Department of Information Technology (IT) facilitates the meetings. As facilitator, the Director of Information Technology calls the meetings, composes the agendas, keeps minutes and distributes related documentation as necessary. Board activities can be found at http://www.hampton.gov/it/ it governance board.html.

The Department of Information Technology Organization

The Department of Information Technology (IT) is responsible for managing the central systems used by all departments across the enterprise. These *enterprise* systems include:

- The enterprise computing and storage infrastructure, data communications, internet and telephone systems (voice/data)
- The financial, personnel and revenue management systems
- End user desktop support and office automation products and services
- E-mail, data sharing and the web services
- US Mail and special deliveries
- Copier and scanning equipment and contracts
- Mass production of hardcopy products
- Enterprise GIS services and support
- Enterprise records management services and support
- Enterprise radio/wireless system coordination and support

IT also assists departments in implementing and managing departmental applications systems and provides support to departmental computer systems infrastructure.





The Department of Information Technology has department specific goals. These were developed and compiled based upon information gathered during IT Board meetings, interviews with department heads, direction from the City Manager and staff. The goals (strategic issues) for the Department of Information Technology are:

- Enterprise mission critical computer systems, processes and infrastructure must be deployed on time and optimized for maximum benefit in order to leverage technology investments.
- Customer delight must be promoted through effective use of enabling technology both within and outside the IT organization.
- 3. IT business processes must improve to sustain reliable technology infrastructure and responsive services.

IT is divided into four key functional areas. Each area has a manager reporting directly to the Director of Information Technology. There are 34 full time and part time employees in the IT Department. Below is a summary of the support provided by each area.

Solutions Development & GIS

The Solutions Development is responsible for providing integration, development and problem resolution services for COTS software and custom-developed applications and technology services including revenue management, financials, personnel systems and the City's Web presence. Solutions Development is also responsible for database management, the data warehouse and general programming support. The Solution Development Team also manages major IT projects and follows PMI methodology for IT projects. Solutions Development is responsible for managing the City's application portfolio and application project portfolio. Geographical Information Systems is managed through Solutions Development. GIS provides support and management of the City's electronic spatial data assets. Additionally, GIS provides mapping to assist departments and the public.

Engineering and Telecommunications

The Engineering and Telecommunications area manages and operates the City's data center, enterprise computing and storage infrastructure, telecommunications services and the City's Network Operations Center. They are also responsible for managing the City's operating systems and associated support tools. The Engineering Team also Internet and Intranet connections, email and file-sharing and is responsible for network security. Engineering is also the primary group responsible for Disaster Recovery planning. Telecommunications provides management, installation, maintenance and oversight of the City's voice communication networks, including desktop telephony, cellular phones and two-way radio system. Additionally, the Telecommunications team conducts billing and technical support for all telephony customers.



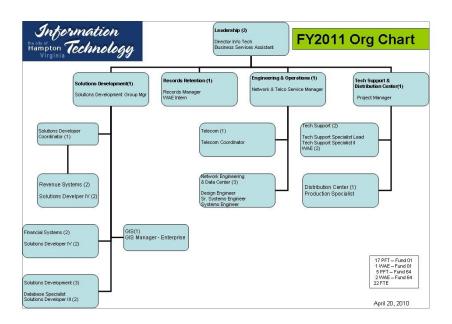


Technical Support and Production

Technical Support and Production has two distinct areas of operations. The first area is Technical Support. The Technical Support area is responsible for providing all technical support for desktop computers, PDAs and other peripherals. They perform site visits to install Windows software, configure e-mail, connect PCs to the network, and other related duties. Technical Support also staffs the departments Help Desk. The second area of responsibility is the production area. This area operates hardcopy production systems for large-scale departmental documents. This area also operates the City Hall mail room and offers other value added services including lamination, large scale printing, copy and scanner contracts and CD/DVD replication.

Records Management

Records Management provides project management and system administration for the organization's document management system. Additional, the RM serves as the subject matter expert for records-related laws and guidelines and maintains the City's Records Manual. The records management area is also responsible for managing the IT department's permanent records and coordinating policy documents.



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Enterprise Teams

In keeping with the City's culture of collaboration amongst stakeholders, the IT Department and the IT Governance Board has established enterprise teams. Enterprise teams are created to focus on specific service areas in order to enhance customer delight and customer service delivery. Enterprise Teams can be permanent or be established on a temporary basis to address a specific service or technology issue. Enterprise teams are made up of selected IT staff members and key department users and stakeholders. Enterprise teams are responsible for the following functions:

- Identify research and recommend actions to address service delivery issues.
- Identify research and recommend actions to deploy new service opportunities.
- Identify research and recommend actions to enhance service delivery to all departments and stakeholders using the enterprise service.

Enterprise teams focus on tactical issues and operating policies and procedures thus providing a team approach to continuous service improvement. Policy and major IT operational change recommendations made by enterprise teams are communicated to the IT Director and the IT Governance Board for consideration. There are currently four permanent Enterprise Teams: Matrix Team, Executive Oversight Committee, GIS Oversight Committee, and the Records Review Committee.

Information Technology Exchange (ITX) Team

The ITX Team was formed after a re-engineering effort of the Matrix Team. The ITX was formed with the goals to enhance the technical capacity of the City organization and to improve technical support capabilities. The ITX Team is composed of departmental staff across the organizations that have been selected by their department heads. The ITX Team functions as a centralized knowledge base of experts who provide PC management for the organization. The ITX Team members share educational opportunities and access to Information Technology support staff.

ITX Team members are also required to pass a competency test. ITX Team members meet on a regular basis to discuss technical issues, form technical standards, recommend policies or programs, to receive technical training and to make technical decisions impacting the organization. The ITX Team is facilitated by IT and is the point of contact for department technology.

Executive Oversight Committee (EOC)

The EOC was established in 2002 to make more effective and coordinated decisions effecting the revenue management systems shared between several departments.

The members include the Treasurer, Commissioner of Revenue, Assessor, the Director of IT, the Director of Finance and the City Manager's Office. The committee meets on an as-needed basis. The committee is charged with setting policy, guiding tax systems strategic direction and to provide oversight and support for projects.





GIS Oversight Committee

Beginning in 2009 the GIS Oversight Committee will be convened to address several issues related to enterprise GIS services provided to departments and the public. The areas of focus for will be as follows:

- Street addressing
- Database quality and consistency
- Web access both on the Intranet and Internet
- Developing a 2 year plan for service enhancements in GIS

The GIS plan is available in the Appendices.

Assessor

311

Codes

Emergency Operations Center

Commissioner of Revenue

Economic Development

Fire

Conventions & Visitor Bureau

Planning Department & Neighborhood Office

Police

Public Works

Treasurer

Parks & Recreation

Information Technology (Facilitator)

Records Liaison Committee

The Records Liaisons work to streamline records system, propagate electronic document management systems and policies, implement policies and procedures and coordinate records management systems and processes within their departments. The Records Manual and information on Records is located in Section 9. And at the Electronic Document Intranet Site.





Section 4. Technology Funding

The City seeks to provide reliable and efficient IT services to its users. Funding is a major component to reach this goal. The city has a strategy for funding technology for current operations, upgrades and new technology as described below.

Department budgets - Current operations are funding through the IT departmental budget for central support of existing services and ongoing IT expenses. Departments also fund on site IT equipment and services for support of their department's unique operations and services. These funds are managed by IT and the individual departments.

Innovation Pool – Start up funding for new applications and systems are funded through the Innovation Pool. The IT Governance board oversees the Innovation Pool and determines which projects receive funding.

Technology Fund - Provides replacement funds on an ongoing basis for existing application systems and infrastructure. The "Technology Fund" utilizes lease-purchase acquisition methods to provide investment opportunities for legacy systems and infrastructure. Systems that have been identified as needing replacement will be scheduled for replacement accordingly. The IT Governance board oversees the Technology Fund and determines the priority of technology replacement and upgrade projects.

The city seeks to allocate sufficient funds to address computing system life-cycle management needs; ensuring systems are state-of-the-art, high-performing and reliable.

General Fund vs. Internal Service Fund (Chargeback)

The Department of Information Technology is organized into two major funding sources: the general fund and an internal service fund.

General Fund

- Application Support of Financials, Personnel, and Revenue Management applications
- Management and development of the network infrastructure and servers
- Project management
- Regular mail
- Web Development
- Reporting
- Innovation Projects
- Departmental file and print sharing

Internal Service Fund

- Telecommunications, telephones and cable systems
- Cellular phones
- PC (desktop) technical support
- Print/Copy
- E-mail and web browsing

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The Role of Hampton's 1998 Strategic Plan and 2006 Community Plans

The purpose of Hampton's technology planning process is to align technology goals with the strategic initiatives of the organization. Hampton's Community Plan is an update of the 1998 Hampton Strategic Plan and the 2010 Comprehensive Plan. The technology plan will support the goals and vision of the Hampton Community Plan.

Hampton's City Community Plan identifies Hampton's vision, "To make Hampton the most livable city in Virginia." The visioning process determined eight key qualities:

- 1. Customer Delight
- 2. Healthy Business Climate
- 3. Healthy Growth and Development of Children and Youth
- 4. Healthy Neighborhoods
- 5. Healthy Diverse Community
- 6. Healthy Region
- 7. Strong Schools
- 8. Youth

Hampton's vision is further defined by a number of key themes identified in the goal setting process

- Economic Sustainability
- Community Partnerships and Engagement
- Community Perception, Marketing and Image
- Preparing Citizens for Future Success

The role of technology is as an *enabler*. In other words, technology in and of itself is not a solution, but rather technology enables solutions that might not otherwise be possible. Therefore, technology goals work in concert with *business planning* to achieve the goals of the City's strategic plan. As such departmental plans should be shared with technologists in order to maximize technology investments.

Additionally, technology provides a foundation upon which effective implementation and management of the City's initiatives can take place. IT works to ensure that foundation is strong and that when called upon to support initiatives in support of strategic issues, the systems are ready and able.





Technology Forecasts

Over the past ten years a technical phenomenon has been taking place that challenges our thinking in regards to service delivery. Technology is enabling new ways for people to interact with organizations, which in turn, is driving citizen expectations higher than ever. There's a new movement towards improved 24-hour self-service mediums as well as trends toward new ways for citizens to communicate and interact with each other, their community and government. Governments everywhere must prepare to meet these expectations or risk their

The backbone of this movement is the Internet. This technology enables organizations to reach individuals – and for individuals to reach organizations – without the limitations of distance or time. In addition, social networking is changing how organizations are formed and behave both in the private and public sector. Citizens are finding new ways to not only find and utilize information on government service but also to shape how they communicate and effect government services. Equipped with this technology, organizations around the world are able to provide enhanced services and communication channels to customers – and governments are no exception.

Organizations are now looking beyond the traditional PC desktop to a virtual desktop environment to simplify end user support and reduce costs. Virtual desktops and cloud services are breaking away from the traditional desktop centric service model and showing great promise for a future network centric model. Just as citizens can work with government at anytime from anywhere the new model will be for employees to support citizens at anytime and from anywhere.

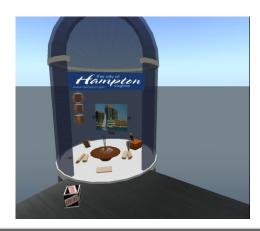
Hampton also operates a 311 call center that far exceeds typical citizen expectations for service delivery and responsiveness. The 311 call center relies heavily on technology and web-based systems; however it is the combining of 311 and the Internet that is of particular interest. Anything that is web-enabled for the public is, by proxy, automatically enabled through the call center, as a call taker in the center can act as a proxy for the citizen when conducting transactions online. Therefore if a citizen can pay their tax bill online, they can also pay by phone. It follows then, that departments focus efforts to develop and acquire systems with Internet-ready interfaces and online transaction capabilities to achieve maximum benefit from their technology investments.

It is predicted that the web will continue to develop and create new ways for citizens to interact, socialize, conduct commerce and create and experience new entertainment venues. The latest web resources commonly known as web 2.0 or even web 3.0 have already changed the way citizens interact with each other. Social networking sites like MySpace, Facebook and LinkdIn have transformed how citizens share information and even create political momentum. The election of Barrack Obama was a testament to how the web can quickly and effectively create organizations and mobilize into action large numbers of citizens. Other Web tools will continue to evolve with more intelligence and computer-to-computer technologies, video, virtual worlds and artificial intelligence.



Technological Opportunities:

- Virtual desktops will enable users to access any application from anywhere and dramatically simplify desktop support and reduce support costs
- Cloud services will enable the applications to be accessed from anywhere on the web, deployed quickly and without large amounts of time spend maintaining internal infrastructure and traditional internally developed applications
- Social networking applications including personal web sites, blogs, wikis, IT, chat
 and other social web tools (Web 2.0) for internal departmental use and citizen facing
 services provides new ways of communicating and supports telecommuting
- Workflow and Office Systems Automation provides internal efficiencies
- Employee and Citizen Self Service Applications provides internal and external efficiencies and support citizen services 24 hours per day
- Enterprise Cashiering Systems expands the use of web financial applications while reducing citizen security risks
- Application integration and advanced search capabilities enables data sharing among departments and more citizen on line capabilities
- Single sign on for departments enable data sharing among departments
- Document Imaging provides more on line data for employees and citizens to support efficiencies and customer delight
- Knowledge Management supports customer delight through more efficient management and access of data
- Wireless (Mobile) Access Devices with integrated applications support mobile computing to increase productivity
- Virtual Worlds new and innovative technology that highlights the city as a progressive, creative, and vibrant community to people around the world
- Web Enabled Video Streaming –provides expanded access to public information

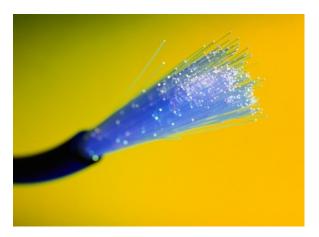


Our Mission



IT Strategic Activities

.The IT Department plans for FY11 starts to change the current service delivery model to support services within the new reality of managing in turbulent times in local government. Last years plans provided a continuation of existing service levels and also provided more value added services to our customers building upon existing infrastructure and tools, and service delivery models. Past models have relied on an end-user equipment and software centric model. The next phase takes a service delivery approach to providing services over the network. Just as our citizen services have moved to the web over the past few years the internal City systems will move to a more simplified, network centric approach to services delivery. IT will be implementing a more aggressive approach to changing our service model and reaping financial reductions while still maintaining core IT services for users. The new model seeks to reduce City expenditures on end-user and departmental spending on IT services and equipment like PCs, local software licenses, storage, desktop support, equipment configuration and installation and other field support activities. Below are the major new areas to support the new reality of local government. Each initiative greatly changes the current service delivery model but sets the state for long term, sustainable costs reductions in IT support and operating expenses.



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GIS & Land Management Support

Geographic Information System (GIS) is a tool for linking and displaying graphical (spatial) data with tabular data. This combination allows for the creation of products and services that would be difficult, if not impossible to produce by other means. GIS allows for the management and analysis of large sets of information.

The GIS Office manages the overall infrastructure of the City's Geographic Information System (GIS). Its primary purpose is to provide GIS technology access and technical support to all employees who use this tool to perform their work more efficiently. The GIS Office will leverage Hampton's existing data, infrastructure and expertise to implement the core elements of the enterprise GIS solution. The GIS enterprise service will continue to expand its capabilities and it is planned that the following capabilities be implemented.

- GIS coordination between City departments, other governmental agencies and IT
- Development of a City Wide GIS Plan—See the Appendix.
- Improved GIS Web Services for Internal and External Use

Enterprise Cashiering

The City continues to deploy new on line services to the public. Many of these applications are for sales, fund raising and other purposes that require secure financial transactions. Secure on line transactions have become a concern with in the credit card industry over the past several years. The credit card industry and government have tightened up security requirements in order to protect the public from identity theft, online fraud and other risks associated with on line transactions. These new requirements have started to go into effect and require credit card vendors such as the City to adhere to new standards. Currently departments have deployed numerous applications to provide on line financial transactions with the public. Some of these adhere to the new security standards and others do not. In addition, Finance and the Treasurer have numerous application processes to mange for the City's financial process. IT will be developing enterprise cashiering services that will adhere to all new security standards and provide Finance and the Treasurer with a standard process for on line transactions for credit cards. Any new on-line transaction applications will use the new standard services. Existing applications will move to the new services as applications are upgraded or replaced.





Web 2.0

According to wikipedia, "Web 2.0 is a term describing the trend in the use of World Wide Web technology and web design that aims to enhance creativity, information sharing, and, most notably, collaboration among users. These concepts have led to the development and evolution of web-based communities and hosted services, such as social-networking sites, wikis, blogs, and folksonomies". Web 2.0 is still a very new field, particularly in local government. Hampton's Community Plan used a community based vision and also seeks to foster community partnerships and engagement. In addition, Hampton strives to be viewed as a City that offers many amenities and is forward thinking. The value of Web2.0 technologies lies in the transformation of the way a government interacts with and presents itself to stakeholders. Web2.0 moves us beyond the traditional communication approach of web information and instead establishes a framework of collaborative government in which stakeholders have not only the ability to become informed about governmental decisions but can participate actively and shape decisions through new social networking and interactive technologies. Web2.0 also strives to provide a richer interactive experience in conducting transactions with government based on a user's preferences (i.e. the next level of egovernment). Hampton is in the planning stages of deploying web 2.0 technology to better service its citizens and remain at the forefront of technology in support of collaborative government.

Security Program Initiatives

As technology proliferates within the City and amongst citizens, security risks have also increased. Identity theft and other serious concerns have spurred governments to take more action both internally and externally. Hampton is no exception and is establishing a Security Program to reduce risks to internal city users and systems as well as the citizenry. The City's IT department will be partnering with Public Safety and other departments to inform IT users everywhere of best practices to reduce risks. Specific initiatives include:

- Updated Security Policy and Acceptable Use Policy—See Section 9.
- Security Awareness and other resources for employees—See Section 9.
- Updated Disaster Recovery Plan and Tests





Distribution Center Reengineering

The IT Department manages the City's Distribution Center providing some of the City's copy, print and mail services. Over the past several years revenues have declined, fund balance has been negative and we even have comments and survey responses showing less than high customer delight. A study of the mail process and other processes was produced in FY09 to find out more about mail processes in the City. Several inefficiencies were found in the current processes for mail and print. Performance measures over the last couple of years indicate declines in volumes and revenues. Prices for services are also higher than in the private sector thus creating customer delight issues. The IT department has been exploring options for reengineering the existing distribution center. Options include realigning existing resources and developing new business processes, eliminating services provided by the distribution center and having departments go "on their own", and outsourcing. The FY10 original budget proposal suggested eliminating one of the positions to save costs which would have essentially eliminated many of the services provided by the center. IT has explored several options for the re-engineering. All options restructure the distribution center and move copy and print services to a department "self service off site" model.

Distribution Center Services

- Large volume copy/print
- Specialized copy
- Interoffice Mail
- Daily City Hall US Mail
- Package shipments
- W-2 and pay stub printing
- Misc check printing
- Centralized management of copiers
- HR & Finance printing



Our Mission



Document Imaging and Storage

The IT Department has instituted a new enterprise Document Management System (DMS) and Records Management process. The DMS system has allowed departments to scan paper documents into an electronic, searchable repository. This allows users to access to City records quickly and easily. It also provides a low cost and reliable storage solution. IT has created a Records Policy and is actively working with departments on proper document retention, destruction and storage. See Section 9. and the Electronic Document management intranet site for more information.

Reengineering traditions to improve and streamline business processes eliminate hand-offs and enhance customer service. Additionally, workflow technology will take advantage of existing technology investments in e-mail, the web and other technical infrastructure elements, creating additional returns on those investments and further optimizing our efforts. The City strategic direction is to have all departments on the DMS where efficiencies can be achieved.



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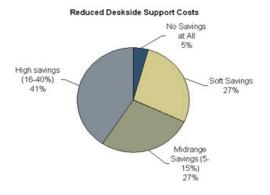
Desktop Virtualization

PC and desktop hardware and support costs are a large portion of the cost to supply IT services to city employees. Currently the City spends between \$250,000 and \$315,000 annually on desktop PCs purchases based on past years with a 6 year replacement schedule. In addition, the IT Department spends over \$150,000 annually on PC support charges which consists of mostly personnel charges. The past several years there have been advancements in technology to reduce the cost of end user hardware and support staff resources required. Most organizations that have implemented virtual desktop deployments have realized savings. The chart below is a study by InfoTech of savings experienced by organizations.

What is a virtual desktop? - A virtual desktop is almost like the old mainframe terminals. All your applications are in the cloud and IT just serves up the applications that you need to do your job. Every user has a profile and when they log in from any device or from any location, the user accesses their City profile which gives serves up all their IT services. Imagine any PC being your work PC......

Benefits

- 1. Simplified Management
- 2. Greater Security
- 3. Easier deployment of applications
- 4. Independence from PC devices—we could use any PC, lengthen refresh or use personal devices
- Energy savings by using more efficient and cheaper desktop devices
- 6. Supports disaster recovery at the end user



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Section 6. Investment Priorities

Cloud Computing Services

Computers and software are now a part of everyday life. Private citizens use email, set up websites, and some run their own businesses using tools like Google, Salesforce.com and others. Citizens are able to utilize technology services without having to host their own IT infrastructure, hiring staff to operate it, spending a lot of money and getting mired in lengthy and complicated procurement processes. If citizens can do this easily - why can't local government? Cloud computing may be an option to reduce computing costs in the long run.

So, what is cloud computing? According to the National Institute of Standards and Technology (NIST), cloud computing provides scalable IT capabilities that are offered as a service over the Internet to multiple users. Many users share pooled IT resources, reducing costs and resulting in greater computing efficiency. Cloud computing offers a cost-effective service oriented approach for sharing computing resources, whereby common infrastructure, applications, information, and solutions can be utilized across the government. The overall objective is to create a more agile enterprise, where services can be provisioned and reused on demand to meet business needs.

Cloud computing can be viewed as the green computing option, as it promotes sustainability and has a much smaller carbon footprint by limiting duplicated efforts and utilizing computing power more efficiently. The City already has awarded contracts to specific vendors providing cloud services and they often offer lower total costs than some traditional solutions. While Hampton could use private sector cloud computing services there also are opportunities to share infrastructure and services with other Hampton departments, non-profits or public entities to create a "Hampton Cloud Computing" service. Cloud computing is evolving and is not an immediate solution for every Hampton application. But it can give Hampton the same opportunity the private sector enjoys to reduce spending while making better use of staff and resources with a more forward-thinking, environmentally sensitive approach. As Hampton moves to into FY11 the IT department will be evaluating new system implementations to determine if a shared services/cloud computing offering is available and viable.

Current City Cloud Computing Services

- Employee Recruitment
- Risk Management
- Video Streaming
- Voice Broadcast
- Citizen E-mail Broadcast
- Recreation Management
- Legislative Tracking

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Section 6. Investment Priorities

Overview

A financial plan is necessary in order to manage, prioritize and plan business investments for maximum return on investment and appropriate alignment with the city's goals and objectives. Because of the city's diverse business application portfolio (from tracking potholes to investigating crimes to assessing property), it becomes all the more critical that the City manage technology investments thoughtfully and with long-term vision.

Prioritization Factors

Technology investments pose perils but can also create opportunities. Key factors to weigh include:

- Increased risk in service disruptions -- when IT services fail, departments may be unable to complete their tasks effectively or at all;
- Internally developed systems are difficult to maintain and highly skilled staff resources are expensive to train and retain;
- Loss of revenue applications involved in the tax assessment, billing or revenue collection process must be high performing in order to avoid errors that cause revenue to "fall through the cracks";
- Poor citizen perceptions of government occur when computer errors are frequent, or when service is less than that they are accustomed to getting from the private sector; furthermore, it has also been demonstrated that if the public believes that the City has a highly reliable and accurate system, the public is less likely to attempt to avoid taxes that are rightly due;
- Opportunities for improved effectiveness that are enabled through technology may be lost:
- Wherever information "touches" citizens represents an opportunity to improve service or effectiveness these can not be taken advantage of without appropriate investing:
- Applications that do not take advantage of the web browser cost significantly more to maintain and support than web-based products;
- Applications that are not GUI-based ("point and click") are even more costly;
- As the City's business has become more complex and revenue/payment streams more diverse (for example, special tax districts, PPTRA, fee-based activities and licenses), it is becoming increasingly labor intensive to reconcile financial information. The City needs an enterprise wide financial system, or at least systems that are integrated at the enterprise level;
- At some point, lack of investment creates a negative ROI, i.e., maintenance and support costs balloon.





Section 6. Investment Priorities

Investment Portfolio

What follows is a summary of technology investments throughout the city. Investments are categorized into four areas:

- Enterprise applications those that are applications that serve the internal needs of all departments
- Infrastructure technology that services the telephone and communications networking needs of the City
- Strategic applications of technology that support the City's Strategic Plan
- Mission Critical those specific to department missions

Enterprise Applications

System Use	Investment	Plans	Status
Real Estate Assess- ment	Unknown	Requires integration with tax billing system, Codes System and GIS	IT and RE have begun discussions regarding integration with GIS system and Codes. No upgrades or replacement scheduled for core product at this time.
Risk Management		Old system has been replaced with a cloud computing service.	RM has imple- mented a new cloud service for RM.
E-Mail	130,000	Email system is current latest release from MS. Platform is stable and well within storage capacity.	FY11 will require an upgrade in FY11 to maintain up- dated systems. Rough estimate is \$35,000





Section 6. Investment Priorities—Enterprise Applications

System Use	Investment	Plans	Status
Financials/ Procurement	700,000-1,300,000	Conversion to web based point and click platform	Completed conversion April 2010
Personnel/Payroll	500,000-750,000	AS/400 architecture difficult to support; neither GUI nor web-based at this time; large company; unable to effectively provide management information; moderate maintenance costs	Plans to begin conversion to web based system in FY11
Budget Management	N/A	Current budget development process is manual and not integrated with Financial system.	Budget module implemented as part of the Financial system in April 2010. Further budget automation is needed to reduce manual processes
Tax Billing/Revenue Management	1,250,000	Current strategy to develop system using Windows dot-Net and SQL platform over a 5-year development cycle (currently in year 4).	Development schedule is heavily impacted by operational demands of customer departments and legal mandates. Not all modules are complete. Back end technology needs to be updated to enable newer web features and enable maintenance of servers and moving to the Hampton back up system.

Our Mission



Section 6. Investment Priorities—Enterprise Applications

System Use	Investment	Plans	Status
Document Manage- ment (Imaging Sys- tem)	60,0000-100,000	Records Manager position established in FY08 budget.	Dept implementations through 2013 in process.
GIS Systems	100,000	Existing system is up to date and integrated with several other core applications. Staffing for support is an issue.	Upgrade to internal and public interface will be complete May 2010. Exploration of options for future integration and support is underway.
Online Payments	N/A	City is implementing an online payment system through a cloud computing service. All departments will have this available.	IT is currently implementing the new system and expects completion in Summer 2010.
Desktop OS	N/A	Existing XP environ- ment is fully sup- ported until 2014.	IT Dept currently evaluating the value proposition of Windows7 and is planning a transition.





Section 6. Investment Priorities—Infrastructure

System Use	Investment	Plans	Status
City Hall Telephone System	1,250,000		New System in- stalled 2006; pro- ject replacement 2020 at estimated cost of \$1.5M
Telephone systems at Library, PWO and HFP in need of re- placement	N/A	These stand- alones were in- corporated into new CH system.	System replaced in 2006 - 2007; project replace- ment in 2020 (part of \$1.5M for City Hall System)
Internet & Campus Network Connec- tivity	Ongoing	Existing connections becoming saturated; may be unable to support additions to application portfolio such as video streaming for council and traffic control	Increased bandwidth in 2009; use evaluated regularly and increased on an as needed basis as usage requires. Network components will need upgrades in 2013.
Fiber Connectivity	Ongoing	City needs improved telecommunications infrastructure in order to be prepared for future application demands for bandwidth	Expanded annually as opportunities arise





Section 6. Investment Priorities—Infrastructure

System Use	Investment	Plans	Status
Storage and Server Capacity	\$250,000	Storage demands for email, docu- ment imaging, and files continue to increase.	Completed upgrade in 2010 which includes a redundant site to support disaster recovery.
Disaster Recovery	N/A	Incorporates use of services, multiple lines of connectivity and replication of critical systems at a remote location.	Upgraded current WAN infrastructure and also servers and storage for redundancy. Schedule will be largely dictated by business case and process.
Private Switch Address Location Information	50,000	Calls placed to PSAP via City- managed desktop phones provide ANI/ALI are limited to location of our PBX within CADS. PS/ALI enables us to provide more accurate and de- tailed location in- formation.	Upgrade sched- uled with the CAD system in 2010.





Section 6. Investment Priorities—Strategic Systems

System Use	Investment	Plans	Status
CRM (Integrated 311, Complaint Tracking & Service Request Processing)	350,000	CRM use continues to grow in the organization. 311 system has few resources is not web based with few customer self service applications.	Implemented integration with work orders. Self service implementation is limited.
Web Development & Web2.0	N/A	Hampton.gov redesigned in late 2006. The City has expanded into web2.0 applications.	New social media page was devel- oped and a new beta Intranet was deployed in 2010. FY2011 will move this function out of the IT department.
Municipal Legislative Management	60,000	Newer system desired to allow improved citizen access to information and interaction with departments	Replacement completed in 2006. No upgrades or replacement scheduled at this time.
Online Permitting	80,000-100,000	Existing system unable to accept online applications for permits has aging technology that doesn't allow PC software upgrades.	Replacement system is being researched for an FY2011 implementation.
Performance Management	250,000	City Administration needs to have a single portal to track and measure performance in all departmental op- erations and budg- ets.	N/A

Our Mission



Section 6. Investment Priorities—Strategic Systems

System Use	Investment	Plans	Status
Online Recruiting System	30,000	Product is an ASP solution. Overall, the service is performing very well and meeting expectations.	Implementation completed in 2006. No planned re- placement sched- uled at this time.
CIP Project Portfolio Management	110,000	City needs to have a system to track project tasks and budgets for all capital projects.	Financial System provides this capability and is being implemented in 2010.
Automated Citizen Alert- ing	51,000	Enables automated telephony messages to citizens for both emergency updates and community information.	System pilot completed, RFP developed, city is evaluating choices.





Section 6. Investment Priorities—Mission Critical Systems

System Use	Investment	Plans	Status
Public Safety (CAD, PIS- TOL, JAIL, MCTs)	250,000	System is on a regular schedule of incremental upgrades. System performance is good, maintenance cost is reasonable.	No planned upgrades or replacement scheduled at this time.
Fire RMS	50,000	System is integrated with OSSI public safety system for automated data dumps.	Dedicated server will likely need re- fresh in approxi- mately 3 years. Any upgrades/ replacement will be covered by FD op- erational funds.
Permitting & Inspections		Requires system upkeep; lacking tie-in to customer service systems (CRM). Vendor purchased and system is in a sunset stage.	Wireless inspections implemented in 2009. System replacement is being researched for FY2011 implementation.
Fleet Management	57,000		Upgrades are coordinated with vendor directly. No replacement scheduled at this time. Any upgrades/replacement will be covered by Fleet operational funds.
Parks & Recreation Reservation and Registration	240000	System requires upgrades to bring it up to date. System is not web based and is not PCI compliant which prevents secure credit card sales.	Replacement system being implemented in 2010.

Our Mission



Section 6. Investment Priorities—Mission Critical Systems

Library Card Catalog and Online Reference Services	250,000	Recent product mergers raise con- cerns regarding	Anticipate need for a replacement in FY12 at an esti-
		ongoing support for existing product	mated cost of \$200,000
Social Services	XXX	XXX	In FY11 will be researching current system viability for client tracking.
Facilities Management	xxx	XXX	No known upgrades or replacement scheduled at this time.
Traffic Control and other Public Works Applications	xxx	XXX	No known upgrades or replacement scheduled at this time.
Public Works Work Order Request and Asset Man- agement (GBA)	340,000	Any replacement would also require custom integration with Lagan CRM.	Public Works upgrade in process. System will be expanded to Parks Operations and the Steam Plant in 2010.
Animal Control Work Order Request and Inventory Mgmt	100,000	Recent reporting requests and slow response performance have prompted AC to evaluate WO systems designed specifically for animal control.	Selected product has already been integrated with the Lagan CRM. Pro- ject is on hold due to AC transition.
Legislative Information Tracking (POLITICS)	N/A	System provides conduit between City's lobbyist and City management to communicate and document impact and opinion of legislation at state level.	System was implemented in late 2007. Currently it is being used for the 2008 GA session. No upgrades or replacement scheduled at this time.
City Attorney Case Management System	40,000	Any replacement or upgrade will need to be tested and/or reintegrated with Exchange.	System was implemented in early 2007. No upgrades or replacement scheduled at this time.

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This section of the plan identifies the architectural elements currently being used by the City and provides a blueprint of the technology-based systems, platforms, standards, connections and data models in use across the enterprise.

Applications Portfolio

The IT Dept maintains a listing of the major application systems being used by city departments. Interdependencies between systems are mapped to show where these applications connect to other systems inside and outside of the City.

Hosted or Commercial Applications

Dept. User		
Contact management application	Economic Development	
GIS core server (application and database)	IT	
Network back-up application	IT	
Case management	City Attorney	
Risk management system	Risk Management	
Facilities and class registration system & cashiering	P&R	
State Supreme Court Systems	Clerk of Courts	
Provide call usage details for Enterprise Telephone System	Enterprise Telephone System	
email iSeries reports and data extracts	Finance, Budget, HR, IT	
Geographical information system	IT	
Records mgmt system	Fire	
Fleet Management	Fleet	
Work order mgmt system	Public Works, P&R	
Online 3D mapping application	Enterprise	
Video streaming and archiving service (ASP)	Public Communications	
client tracking system and Dbase programs	Social Services	
Hampton Employees Retirement System	Finance	
Online applications/candidate management	HR	
HR and payroll	Finance and HR	
Public computing management	Library	





Hosted or Commercial Applications

<u>Description</u>	Dept. User
Work order mgmt system	IT
Jury management system	Clerk of Courts
CRM application	311
Reporting tool for CRM application	311
Document management application	IT
City council agenda management	City Clerk
Financial management and procurement	Finance, Budget
Forms printing for iSeries	IT, Finance
Computer aided dispatching and criminal justice information system	Police, Sheriff, Fire
Permits and inspections system	Codes Compliance
Aerial images	Enterprise
Enterprise Reporting/Dashboard tool	City Manager's Office
Legislative Tracking	City Manager's Office
Mass Appraisal system for real estate	Real Estate Assessor
Provides detailed station ANI / ALI info for calls to 911 from Enterprise Telephone System	Enterprise Telephone System
Citizen notification system	311
SQL-based, iSeries data extractions & report writer	Finance, Budget, HR, IT
Citizen notification email system (ASP)	Public Communications
Traffic control system	Public Works Traffic Engineering
iSeries data file/spooled file/IFS administration tool	HR, IT
Online survey tool	IT
Virginia Commonwealth Attorneys Information System - Lotus Notes Based System	Commonwealth Attorney
Client information tracking	Health Dept
Media contact tracking software	CVB
Remote connectivity software	IT
Web Emergency Operations	EOC





Custom Developed Applications

Nama	Driman Han Dont/s
Name	Primary User Dept(s)
Business License Excise Tax	Com of Revenue
Building Permit - Commercial	Codes
Building Permit - Residential	Codes
Business Card Application	IT
Code Compliance	Codes
CMS, FMS, RMS and RIS	Clerk of Courts
Community 20/20	Neighborhoods
Debt Set-Off	Treasurer
DMV Stop	Treasurer
Employee Directory	IT
Events Calendar	Econ Dev
Lagan eForms	311/Public Works
Online Payments	IT
Online Tax Payments	Treasurer
Parking Fine Automated Payments	Treasurer
Preferred Realtor Database	Neighborhood
Real Property Database	Assessor
State Income and Estimated Taxes	Treasurer
Traffic Incident Reporting	ІТ
VCAIS	Commonwealth Attorney
VISION	Health Dept
Warrants	Police
WebTaxACH	Treasurer
Zoning Codes	Planning





Custom Developed Applications

Description	Dept. User
Business License Excise Tax system	COR
Animal Control Inventory/Work Order Mgmt	PD
GIS-based parcel info interface	Enterprise
Revenue assessment and management system	Treasurer, COR
Reporting tool for CRM application	311
Rostering application used by Fire Dept	Fire
Surplus equipment sales	Procurement
Town Center Reporting	COR
Online reporting tool for Pawnshop owners	Police
Public work station and printer management	Library





Infrastructure Portfolio

Item	User
Telephone System	City Wide
Network Connectivity	City Wide
Internet Access & Hosting	City Wide
Servers, Shared and Dedicated	City Wide
Security, Anti-Virus, Anti-Spam, Firewall, Auditing	City Wide
Core Switches and Networking Equipment	City Wide
Mobile Data Server	City Wide
Billing and Call Accounting	City Wide
Shared Storage & Back Up	City Wide
Remote & Mobile Connectivity Equipment & Services	City Wide
Virtual Desktop Components & Software	City Wide
Cloud Server w/SharePoint	IT Disaster Recovery Documentation



The City will continue to move to a shared and redundant infrastructure to reduce overall costs and provide greater reliability.

The City will evaluate cloud services as primary and back up services.

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Data Standards

The IT Board approved address standards to ensure optimal integration between systems that share address fields -- and therefore may be linked -- but contain no other data fields in which to join data together. The address layout standards, as well as procedures and guidelines for management of address assignments, are documented in Section 9 of this document. Also outlined in the policy are procedures for use of the centralized street index file that can be used for street address validation by departmental systems. This is the single most effective way to ensure accuracy of data and increase data sharing capability between systems. Departments should consult with IT for support on these and other validation systems.

Data Sharing and the Data Warehouse

Data sharing between departments is important to the effective use of information resources. For this reason departments should plan for the use of data maintained by them for other departments. Data extracts, contemporary reporting tools and integration with the data warehouse will enable effective data sharing.

The data warehouse is a central repository of information collected (in real time) from across the enterprise. The data warehouse can be accessed from the City's Intranet site at http://cityhall.hampton. IT works with departments to establish guidelines and priorities for development of the data warehouse. IT works with departments to maintain and develop a catalog of data warehouse resources including files, data elements, query aids and cross-reference information. This information is available on the web site.





Platform Standards

"Platform" in this context covers servers, PCs, software, the iSeries and related peripheral equipment. The following are the City's standard platform selections:

Office Software. The City uses the Microsoft Office suite as its office application software product of choice. This includes MS Word, Excel and PowerPoint. Most users are currently using Office 2003 or Office 2007.

Personal Computer. The IT Board selected Dell as the City's vendor of choice. The City utilizes state contracts for purchasing new PCs and servers. Departments should place orders for new equipment through procedures as outlined on the Intranet site and documented in Section 9.

Servers. The IT Board approved the long term investment in server virtualization. Virtual servers allow departments to share capacity at a reduced overall cost to the City. The City uses Microsoft OS and VMWare with Active Directory and Dell servers in most installations. The only exception is the central iSeries system, which is home to the Human Resources/Payroll (Infinium) systems.

Database. The City uses MS-SQL Server on all systems that require a significant database platform. For smaller systems, the Microsoft Access (JET) database is utilized. The City's IT department is moving away from Microsoft Access due to the lack of support resources in IT and the strategic direction of Microsoft to other products like .Net and SQL. For query (reporting) purposes, there are three platforms.

- SQL is used for most newer applications or applications with built in report generators provide users the ability to create and download reports into excel and other office automation
 products.
- Crystal Reports is used for high-end query applications.
- ASC Sequel is used for queries involving the iSeries financials and personnel systems

Application Languages. It is the preference of the City to use, wherever possible, applications written in Microsoft languages. The city develops most applications using the dot-Net architecture and Visual Studio tools.

GIS. ArcView and ArcInfo are the GIS applications of choice for the City however Google Earth has been implemented and may be appropriate for some citizen inquiries

Anti-Virus. The City uses Norton's Anti-virus software for protection against virus attacks.

E-Mail. The City uses MS Exchange as the e-mail software system of choice.

Web Browser. Internet Explorer 7(or higher) is the web browser of choice.

Operating System. Windows XP (Windows 7 is being deployed in 2011-2013).

5250 Emulation. IBM's Client Access is the software supported by IT to connect to the City's AS/400 (i-Series) and state 3270 systems.





Voice & Data Mobile Network Services

Just as in the private sector, the City is experiencing a rapid increase in mobile voice and data communications as well as a decrease in standard landline services. In addition, the lines are blurring between voice and data communications services. The City's plans to support this rapidly changing environment include the following general

- Consider the use of a "universal device" phone policy where employees use the same device for business and personal use to reduce administrative costs and provide more flexibility
- Re-evaluate a "one size fits" all standard for mobile devices and services. New technology is starting to support secure network access from many carriers and devices.
- Deploy applications that provide mobile device access for internal applications and citizen services

PBX: The City provides voice wireline services through a PBX environment connected through an combination of wireless and wired wide area network connections and trunks. A variety of voice services and functions are provided through the system including: but not limited to.

- Standard local and long distance voice
- Voice mail
- VOIP—messaged routed to e-mail
- Call routing
- IVR

Mobile Voice: The city provides contracts with service providers to support mobile voice services for standard business use. In addition, the City allows employees to utilize personal phones for business on a reimbursement basis. The policy for mobile devices is found in Section 9.

Mobile Data: Currently mobile data has very specific standards for equipment and services. In addition the industry provides new functions and devices almost daily. The strict standard policy is in place to ensure a secure and reliable network however, this reduces the ability to provide the fast roll out of new features and services. In the area of public safety, mobile data and voice must continue to rely on strict standards in order to maintain the highest level of security and reliability. However, in the general business use area the City has already begun to deploy other "non-standard" services and devices. The new mobile device policy supports this strategy by allowing the use of personal devices for general business use. The IT department will be exploring options to cost effectively support mobile device connectivity to the network from a variety of devices and carriers.





Data Network Services

Data communications requirements continue to expand as more applications and data go online. In addition, remote data communications requirements expand as employees seek to work from multiple locations or share application services. A trend towards steelwork, employees working from home, contractors accessing City systems require that IT provide a variety of solutions for users to effectively access services. Focus areas of the data network include:

- Utilization of high speed/cost effective resources at all locations. This could be land line or wireless depending on the availability, requirements and costs
- Increased capabilities for telework to allow secure connections to City applications from a variety of devices and networking services. This will include virtual desktop services, notebooks, netbooks, mobile devices and standard laptops and desktops.

Regional Nets

The City also participates in several regional networks including a connection to CRIMES (a secure network used by the Police and criminal justice agencies), RIPTIDE (a shared network providing internet access at reduced rates) and a wireless connection to Newport News. These networks are designed to improve data sharing between the cities located in the metropolitan area, public safety units and the State.

Internet

The City currently provides Internet access to the City through public carrier access using the most effective and cost effective contracts. Internet bandwidth requirements continue to grow due to the following recent developments:

- Increases in continued traditional web services like e-mail, web sites, etc..
- Cloud computing and software services on the Internet
- E-commerce & business relationships
- Web 2.0 and social media
- Online training, conferences and collaboration
- More video and audio conferencing and information sharing

The City upgraded the Internet connection in 2009 and is continually evaluating the requirements for future increases. In addition, the City is putting in place tools to manage and monitor usage to help manage and prioritize services. The City's acceptable use policy also aides in making employees aware of how to properly use the Internet. A series of videos is also available on the City's Intranet.





Security and Privacy

The City of Hampton relies heavily on the application of information technology (IT) for the effective delivery of government services. Rapid and continuing technical advances have increased the dependence of departments on IT. City data, software, hardware, and telecommunications are recognized by departments as important resources and must be protected through an IT security program. The IT security program is be built on the concept of public trust and provides a sustainable and consistent approach to IT security that can be replicated across networks, applications, and transactions.

The Security Triad – The City's IT Security Program follows the concepts of the IT security triad. The classic security triad is based on three tenants: confidentiality, integrity, and availability. Each of these tenants offer some level of protection, but the combination of these tenants allows the city to keep data private where appropriate, insure data has not been corrupted, and keep the systems up and running.

Confidentiality – The concept of protecting confidentiality relies on defining and enforcing appropriate access levels of information.

Integrity – This is the concept of protecting data from modification or deletion by unauthorized individuals and ensuring that authorized individuals have safeguards in place to reduce the risk of damage, corruption or deletion of data by intentional or unintentional actions.

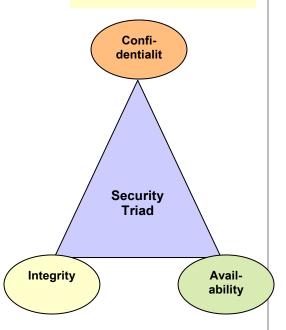
Availability – This concept refers to the availability of the data. It includes ensuring that system access methods and data are available and working properly to perform the business access methods and data are available and working properly to perform the business functions.

Intranet Resources

- 1. Security Policy
- 2. Acceptable Use Policy
- 3. Security Videos & Employee Resources

Security Program

- Risk Management
- Disaster Recovery & Contingency Planning
- System Security
- Facility Security
- Personnel Security
- Incident Management
- Asset Management
- Application Security
- Monitoring
- Auditing



Our Mission



Network Architecture Standards

Introduction

This section provides technical details and technical descriptions of systems, connections, platform standards, network management strategy, server management strategy, network operations and growth planning.

Architecture Goals

The following have been identified as goals for the City's network architecture:

- The network should utilize contemporary mainstream products and techniques that will lower the total cost of ownership for the city
- The network should be easy to operate. Though sophisticated, the network should be simple.
- The network must be reliable, available and serviceable. The network should be fault tolerant and manageable.
- The network should be flexible and upgrade-able.
- The network must be high-performing.





Remote Connectivity

When remote sites are connected to the city's locations, several possible connectivity solutions are available. Under perfect conditions, the following are available and will be based on customer requirements.

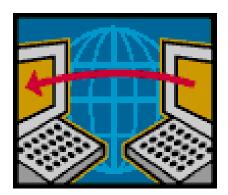
- Fiber
- Carrier Broadband & traditional private line services
- FIOS
- DSL
- Use of SSL and VPN for Secure Connections
- Wireless
- ISDN

Network Platform Standards

Whenever possible, a single manufacturer is desirable. Cisco has been selected as the preferred hardware provider for:

- Routers
- Switches
- General Network Connectivity Equipment

The City is also utilizing and piloting other equipment and services to enhance remote connectivity at a lower cost and provide new networking capabilities.







Network Architecture Objectives

The following outline the technical components being used and/or planned for in the network architecture.

- **Internet Connection—**The city has installed dual connections to the Internet for redundancy and they are load balanced.
- Firewall—The city maintains firewalls between the Internet and internal WAN.
- **Central Management**—The city requires network management capability for network components to enable network management.
- Standard desktop—The city has identified a standard desktop configuration to ease network
 configuration complexities. Dell is the PC vendor of choice, with Windows XP and TCP/IP as
 standard network configurations. IT is starting to provide more virtual desktop services using
 Vworkspace to enable other types of equipment and connections to central services. This
 reduces the future need for standard desktops especially for casual users, contractors, state
 users and others.
- DHCP (Dynamic Host Configuration Protocol) The city has implemented DHCP to reduce the complexity required for desktop installations and general IP management.
- **DNS (Domain Name System)** The city provides for DNS services through a contracted service provider.
- **100 MB Switched to Desktop—**The city uses 100MB Switched Ethernet as the standard for desktop connectivity.
- VPN (Virtual Private Network) The city has implemented virtual private network services that
 will allow enhanced access to network resources through the Internet, allowing utilization of third
 parties for networking needs. The city uses Cisco appliances for networks, and Cisco client s/w
 for individual users.
- **External mail access—**The city has implemented a method to allow end-user access to Outlook from any Internet access terminal. This is available at http://netmail.hampton.gov.
- **List Servers**—This function is provided through 3rd party systems commercially available through the Internet.
- **GB to servers**—The city has developed Gigabit Ethernet as a preferred connection speed to high bandwidth servers.
- **Web Servers**—The city operates an external web server for the city's primary web presence and an internal web server for access by city employees only.
- **Collaboration Tools**—The city utilizes web2.0 and social media technology for citizen collaboration and also utilized SharePoint for internal collaboration. IT will be looking at cloud Share-Point and other collaboration tools in the future for internal use.



- Remote Access Services The city provides dial-up services but this technology limits the
 types of applications that can be accessed effectively. The city requires the use of VPN for
 remote access to the network resources or an alternative as secure as VPN for security reasons. Other remote access services are available by contacting IT to develop the best solution. VWorkspace and other options are being deployed.
- **E-Mail Server**—The city maintains an Exchange server that provides internal e-mail and Internet e-mail services to employees.
- **Dept Servers**—IT is in the process of phasing out departmental services for the more cost effective virtual server environment. IT will continue to provide technical support for departmental servers as requested and/or needed until servers are out of support or retired.
- Active Directory—The city has deployed AD in a multi-domain forest structure that consist
 of Hampton and Police roots. AD is used to produce seamless access to applications.
 Where systems are supporting on-site AD will be the network domain service.
- Terminal Server The city deploys Terminal Server where appropriate.
- **IVR Server—**The City operates an interactive voice response system.
- Test and Development Environment— The city maintains a test and development environments for new applications on the virtual server environment.
- Redundancy and Replication—The city's data center has a redundant site and replication to ensure a sound and efficient back up system and to support limited disaster recovery.
- Off Site Storage—The city maintains all back up data off site.
- NOC—The city operates a network operations center housing all central network equipment, servers, consoles and related equipment.
- PC Audit—IT uses an audit program that runs automatically as a login script on each endusers workstation to allow IT to collect information about installed hardware and software across the organization. The audit is enabled upon request.
- WSUS Windows Software Update Service The city uses WSUS to enforce security updates on Microsoft systems across the network.
- Security—The city utilizes appropriate Anti-Virus, Spam Filtering, Web Filtering and Network Auditing software





Server Design

Overview

The Information Technology Department is responsible for the recommendation and implementation of core network infrastructure, including servers, switches, routers, etc., to support the City's technology needs. In the years since the City Mainframe was retired, IT endorsed and supported a hardware isolation design strategy. This was due to the fact that servers could be deployed much cheaper than mainframes. Separate servers would also provide dedicated hardware to each application and service, which would increase stability and isolate failures. Under this design strategy, departments would purchase their own dedicated servers with IT support. While this strategy initially had great success in providing our customers with a high level of service, it has resulted in "server sprawl". Server sprawl describes a condition where the number of servers in the environment grows beyond IT's ability to track and manage them successfully. In addition, there are several cases where multiple servers that have been deployed which essentially perform the same function, but for different departments. In many cases, these servers are using less than 5% of their potential capacity. This emerging inefficiency has prompted the IT Department to reconsider the existing strategy. This document outlines a server design strategy that places an emphasis on consolidation, efficiency, ease of management, and cost reduction on behalf of our customers. In addition, a list of standards will also be provided to help clarify the requirements for any additional servers added to the infrastructure.

Design Strategy

The current design strategy establishes the IT department as a "Service Provider" for all of the City's technology needs. Using this methodology, a customer department will generate a request for new service. IT will then work with the customer department and any participating vendors to evaluate the resources required to host such a service, and then define a hardware or virtual platform to host the service.

When performing a service evaluation, the following criteria will be considered:

Physical location of the primary customers.

Type of service requested.

Availability requirements of the service.

A list of minimum hardware and software requirements.

Public access requirements.





Physical Location of Primary customer:

IT will host services in the most appropriate location based on user needs, application needs, bandwidth availability and security. This strategy improves performance and reduces the risk of service outages. If the customer is located in City Hall, the server will be located in the Network Operations Center in City Hall. This is a environmentally controlled room with a backup generator and Uninterruptible Power Supply. Likewise, if the customer resides at a site that supports fewer than 20 users, the server will also be located at the NOC, unless the site does not have appropriate bandwidth availability. The 1st Floor of the Rupert Sargent Building contains a smaller server room that supports all of the City Departments at that location. Services supporting these customers will be supported in this server room The City Hall NOC may be considered as an alternate site.

Type of Service:

There are 4 categories of service for a server: Application, Database, File, and Infrastructure. Application services include web servers, 3rd party applications, custom designed .NET applications, etc. Database services are simply stores of information and data, typically used in conjunction with an application. File services provide disk space for both personal and departmental resources. Infrastructure services include Domain Controllers, Domain Name Servers, WINS Servers, Patch Management services, and other equipment used to manage the security and efficiency of the city's network. Infrastructure services are deployed and managed by IT Engineering on an as-needed basis. Other service types will be deployed based on the criteria below. City Hall-based services

Application services – Application services will be hosted in a virtual infrastructure. This virtual infrastructure allows IT to fully utilize a physical server by hosting multiple logical server instances on the same hardware, without degrading performance. It also allows for a level of resource failover in the event of a physical server failure. If a new service requires some form of dedicated hardware that cannot be accommodated in a VM environment, a dedicated server will be used to host the service.

Database services – Database services will be hosted in a consolidated database server environment whenever possible. For heavily used or extremely large databases, dedicated servers will be used as warranted.

File services – All File/Print services will be hosted on the central file server for City Hall.

City Hall services are part of the City's IT disaster recovery plan and redundant site.





Rupert Sargent Building-based services

Application services – Application services will be evaluated based on existing server availability and capacity. Every effort will be made to co-locate applications on existing servers.

Database servers – Database services will be hosted in a consolidated database server environment whenever possible. For heavily used or extremely large databases, dedicated servers will be used as warranted.

File Services – File/Print services will be centralized to SARGFILES, which is the central file server for Sargent Building.

Public Works Operations

Services will all be hosted on Virtual Infrastructure physically located at Public

Other

Services that are hosted at locations not listed above will be evaluated on a case-by-case basis. The increased bandwidth availability to City departments makes this option extremely rare. Alternatives to City central services may be cloud computing options for non-standard server services for departments.





Availability requirements of the service:

Single points of failure are avoided wherever possible. This is accomplished using the following methods:

Virtualization technology deployed in the City provides redundant real time services in two locations to provide full redundancy to reduce outages and provide disaster recovery for the most critical applications.

Virtual machines, as well as the City's Exchange infrastructure, are hosted on a Storage Area Network (SAN). This SAN array uses extremely redundant hardware, meaning every piece of hardware in the SAN has a backup. The SAN provides redundant back up and supports reduced manual processes

The City's network core is supported by two core switches, both of which have redundant links to key pieces of network infrastructure, so the network will continue to function if one of the core switches fail. The backbone network to the redundant virtual site also provides redundant network connections.

All servers are configured with some form of RAID (Redundant array of independent disks). This technology will protect the server data in the event of a single drive failure.

Servers are configured with Uninterruptible Power Supply (UPS) to keep servers powered in the event of a short-term power outage.

In the event of a long term power outage, The City Hall NOC and the Sargent Building server room are configured to use generator power.

Services requiring a level of availability that cannot be achieved using technologies above will be evaluated for an appropriate alternative.

Minimum Hardware/Software Requirements: The IT Department will work with the client department to review the hardware and software specifications provided by any 3rd party application vendor, and will use them to determine the necessary resources to support the application. Some vendors may not have experience of expertise with technologies deployed by the City that may be appropriate to support their applications. As a result, there may be times when the IT Department will recommend a deviation from the vendor's desired or required specifications. In such cases, The IT Department will guarantee the same level of service as if the specifications were followed.

Need for Public Access: Any public facing service will be located in the City's DMZ network. The DMZ is a separate network segment attached to the City's Firewall that allows the City to host public services that utilize resources on the City's network without exposing the internal network to the public. All DMZ servers will be located in the City Hall NOC. Any exceptions to this standard will be closely scrutinized and architected in order to ensure the security of the network.





Server Standards

The following standards apply to all servers being added to the City's network infrastructure:

- 1. The IT Department will support a single line of server product. This allows Engineering to maintain a streamlined knowledge base on the server infrastructure, as well as maintain an accurate inventory of spare parts. Any exceptions to this standard will be closely scrutinized and architected in order to ensure the security of the network. Non-standard server products must be approved by IT and supported directly by the vendor.
- 2. Extended Support must be purchased for all servers. Servers have an anticipated life cycle of 5 years, so the extended warranty must cover all 5 years of expected service time. A server may stay in service beyond the designated life cycle only if the warranty is available for renewal. If such a warranty is not available, the server is to be retired, and its services relocated, assuming they are still in use. Warranty information is tracked using the department's Asset Management tracking software. Six months prior to warranty expiration for a server, an assessment of that server will be conducted to determine whether to keep the server in production, or to create a migration strategy to relocate its services.
- Rack mounted servers are strongly preferred in environments that host multiple servers, and mandatory in locations where rack space is currently available. Preference will be given to 2U servers. 2U servers are relatively space efficient, and do not create high concentrations of heat.
- 4. Each server must be serviced by an Uninterruptible Power Supply. If a new server is put into commission, a survey of the proposed location should be conducted to see if UPS service is available. If it is not, a new UPS should be purchased.
- 5. All servers must have redundant power supplies. This reduces the risk of a system outage due to a failed power supply, and also reduces downtime in the event of a failure.
- 6. Servers hosting file resources, databases, or applications must be backed up using IT standard backup software. Servers that have 10Mbps connectivity or higher to the SAN in City Hall will back up data across the network. Server that have T1 or slower connections to the SAN in City Hall must have a local tape backup drive. Servers connected by the wireless network will be evaluated on a case-by-case basis.
- 7. All servers must have the currently supported standard Antivirus Software installed.





Server Standards

- 8. Only members of the IT Engineering will maintain full administrative rights on all City servers (excluding Police), regardless of location or purpose. Other individuals within IT will maintain admin rights to specific servers on an as-needed basis.
- 9 Microsoft Server or Vmware products are strongly preferred as the base Operating systems for all servers. Any exceptions to this standard will be closely scrutinized and architected in order to ensure the security of the network.
- All servers must run some form of RAID for fault tolerance. The specific RAID level will be determined based on an evaluation of the service being provided.
- All servers will be patched on a regular basis to ensure the security of the network infra structure. It is the responsibility of the vendor to ensure any purchased product will work with all MS security and critical patches within 1 month of release. All internally developed applications will undergo a collaborative testing process to ensure both security and continuity of service.

Additionally, the following category-specific standards will apply:

- Database Servers:
- The IT Department strongly prefers Microsoft SQL products. Any exceptions to this standard will be closely scrutinized and architected in order to ensure the security and efficiency of the network. Non-standard database products must be approved by IT and directly supported by the vendor.
- 3. RAID 5 or higher is required on any volume hosting databases.





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IT-001 Tech Support Ordering and Chargeback Procedure

Information Technology manages a team of PC technical support technicians that provide support to those in the organization who do not have their own support personnel within their department. The team operates as an Internal Service Fund. The Technical Support Team provides whatever appropriate level of support deemed reasonable, practicable and appropriate to any city department or agency.

- The Technical Support Team charges \$45/hour for their services with a 1-hour minimum (half hour increments after the first hour).
- Departments may also pre-purchase support for a 25% discount in increments of 100 hours or 10 hours/PC for every PC in the department, whichever is less.
- A visit to a departmental site by any Information Technology staff for PC support is considered a technical support chargeable item.
- Services may requested by calling 311 or e-mailing IThelp@hampton.gov
- Support hours are during standard City business hours which are generally M-F 8 am to 4:30 pm.
- See the Intranet site for more information.





IT - 002 Project Management Policy

The City of Hampton's IT Governance Board established a comprehensive and uniform policy for the management of technology investments for the City.

What is an IT Project and Why Do We Have this Process?

IT Projects are loosely defined as a task or job that requires resources (i.e. personnel, hardware or software) from the Information Technology Department. The IT Project Management process is used to help IT organize and allocate resources in a consistent, effective and cost-conscious manner in order to provide the greatest good to the organization and the citizens of Hampton.

Requesting an IT Project

Any user can request an IT Project using the online IT Project Request Form. Users will complete the form to the best of their ability and then submit it for IT Review. IT will use the information provided in the form to determine the project level and assign an analyst for further evaluation and action.

Project Levels

IT Projects are divided into four categories, or levels, based on the effort-required and the impact.

Level I (Major)

Level I Projects are the largest projects within the department.

Criteria

A project will be classified as Level I if any of the following criteria are met:

Greater than 9 months in duration

Requires more than 1000 hours of effort

Cost of materials (not internal labor) is greater than \$100,000

Level II (Large)

Level II Projects are large in scope and duration, costing over \$10,000.

Criteria

A project will be classified as Level I if any of the following criteria are met:

Requires Multiple Resources

Between 90 days and 9 months in duration

Requires between 80 -1000 hours of effort

Impacts multiple departments

Cost of materials (not internal labor) is between \$10,000 and \$100,000





IT-002 Project Management Policy Continued

Level III (Medium)

Level III Projects are the mid-level projects that will require planning and support, but not to the degree of a Level I project.

Criteria

A project will be classified as Level III if any of the following criteria are met:

Requires no more than two IT Resources

Between 3 and 90 days in duration

Requires between 4 and 80 hours of effort

Impacts no more than two departments

Cost of materials (not internal labor) is between \$1500 and \$10,000

Level IV (Small)

Level IV projects are the low-level projects that do not require a significant amount of planning or expense in order to implement.

Criteria

A project will be classified as Level IV if all of the following criteria are met:

Requires only one IT resource

Less than 3 days in duration

Requires less than 4 hours of effort

Impacts a single department or user

Cost of materials (not internal labor) is less than \$1500

Roles in the IT Project Management Process

Information Technology Governance Board (ITGB) – The ITGB consists of Department Directors representing the Seven Businesses of the City of Hampton, as well as the Directors of Budget and IT. The ITGB meets on a monthly basis to review all project requests requiring funding from the Innovations Pool or the Technology Fund.

Information Technology Project Management Group (ITPMG) – The ITPMG consists of the IT Department Director and IT Group Managers (Solutions Development Manager, Network & Operations Manager, Tech Support Manager & Records Manager). The ITPMG meets on a periodic basis to review project requests, assign resources and priorities and generally coordinate the Department's project management efforts.





IT-002 Project Management Policy Continued

Project Manager (PM) – The PM is the IT staff member assigned to manage all aspects of the project management process. A PM is required for all Level I projects. The PM will work with the department to gather information on the project for the IT Governance Board to assess the projects viability and priority of the project. The IT Balance Scorecard form will be completed for review and assessment by the board.

IT Resource – A resource is an IT staff member assigned to provide services as part of an IT project. A resource can also be the default PM for Level II & III projects.

Department Resource – A department resource is a department staff member assigned to provide guidance and information on the business processes and implementation of the new system or expected new business process within the department. Tasks include definition of business requirements and outcomes for the project, system testers, selected users, department coordinators for system implementation, departmental project managers, evaluators of the service, etc.. Department resources are required for all projects.

Project Proponent – A project proponent is the department's executive level manager that has determined that the project is a priority within the department, has identified and agreed to the costs and funding of the project, has assigned department resources and signs off on project completion. The project proponent has responsibility for the overall success of the project. All projects will have a project proponent. Projects serving multiple departments will have a proponent from each participating department. All, level 1 projects will have oversight committees made up of the IT Director and all project proponents. Oversight committees will meet regularly to ensure project success.

Project Management Process Tools

The following tools will be used by the IT Department for the project management process.

Project Office – Project Office will be used by all IT Project Managers to develop and manage their project plans for Level 1 projects.

Once a candidate project is approved and the process for implementation is started, the Project Manager will create a SharePoint site for tracking and collaboration on the project.

What is not a project?

- Problem Solving/Research
- Training
- Administrative Tasks
- Trouble Tickets

Our Mission



IT-002 Project Management Procedure

User Submits IT Project Request Form

- Any employee can submit a request for a new project as defined above. However, it is best if departments formulate an internal process for vetting projects within their organization to determine their
- The form is routed via email to members of the IT Project Management Group.
- Relevant member of the ITPMG will create a root issue in the IT help desk system for tracking purposes.

Solutions Development Manager and IT Director Assign Resources

- All new project requests will be evaluated as they are received.
- Those deemed appropriate as potential projects will be assigned resources

Resources Complete Feasibility Study And Project Scorecard for Level 1 Projects

Working with the requesting user, an IT resource will complete a Feasibility Study to determine the estimated functionality, scope, business requirements, resource needs and cost of a project request. When completed, user will sign-off as to accuracy of business requirements prior to any development or procurement.

ITPMG Review Feasibility Study

After completion, resources will present potential project to the ITPMG for consideration.

- Approved Approved requests will move to next step. Projects requiring funding from Innovations Pool or Technology Fund will be forwarded to IT Board for approval.
- Declined Root issue for declined projects will be closed and IT Director will notify requestor of request status.

ITPMG Assigns Priority, Level and Project Manager

- Based on information in the Feasibility Study, ITPMG will assign a relative priority, a project level and the most appropriate project manager.
- The project manager will assign the root issue to a project fro tracking purposes.
- The project manager will then create all project artifacts and store them in the project folder. Once the project plan is completed, PM will send advanced notification to the ITPMG and ITPMG will move the project to active or request modifications.

All Project Steps Completed

- PM will complete all project tasks and documentation.
- PM will continue to advise ITPMG and client of progress/issues/milestones
- IT Director will continue to advise IT Board of progress/issues/milestones as warranted
- Once project tasks have been completed, PM will obtain a signed project closure document from client and will complete a Lessons Learned document.

Project is Closed

All project documentation will be stored within the project folder.





IT-003 PC/Desktop Purchase Policy & Standards

Why We Centralize PC Purchases

Many employees have asked why we have gone to a centralized PC purchasing model. After all, it sounds rather "Big Brother-ish" and is counter to our long-held values for innovation and creativity, right?

The problem is that we spend literally hundreds of thousands of dollars on PCs and related equipment every year yet we have no mechanism to coordinate those investments. This in turn limits our ability to make timely or well-informed decisions. For example Microsoft offers discount pricing for Office, but in the past we were unable to capitalize on this because of our uncoordinated efforts.

Another problem is that viruses have made the network vulnerable to attacks from PCs that are not properly configured. In 2003 during the Welchia outbreak, for example, over a dozen IT staff were involved in cleanup for 3 weeks. This is valuable time that is taken away from other value-adding projects!

That being said, those in IT are well aware of your concerns, and that is why they have tried to make the process as easy as possible.

- You are not required to generate the paperwork normally required for PC purchases as this will all be taken care of through IT.
- You will receive better pricing. As stated above, we have already secured discounted pricing for MS Office Professional and Standard editions.

Some of you have also asked about the selections that have been made. The Matrix Team selects the standard which we offer, and they will continue to monitor what is available and make updates as appropriate. The Matrix Team is made up of departmental "techies" from outside IT (you can find out more about them at http://cityhall.hampton). If you don't have a Matrix Team member, you can still make recommendations directly to the Director of IT and they will receive full consideration by the team.

About Other Offers

You may from time to time see other offers which on the surface seem like a better deal than what is available off the state contract. Usually this is not the case. The mostly likely things to affect cost are the warranty. All of our systems come with full 3 year warranties at a minimum. Most of the less expensive units include only a 1 year limited warranty. There will also be slight differences in quality. For example the laptops available off state contract have metal chassis components and undergo shock and vibration testing. The less expensive models do not. Furthermore, many of the less expensive units come quoted with home versions of Office or OS software which are not compatible with our networks and must be upgraded. In other words, you get what you pay for, generally speaking! Still, if you would like us to investigate a specific offer, provide it to the Director of IT, and he will be glad to research it.





IT-003 PC/Desktop Purchase Policy & Standards

Technology Purchasing & Standards

Purchasing "Lists"

Technology is changing rapidly and standards are important to be cost effective and manage services effectively. However, because of the constant change in technology the IT department continually evaluates equipment. Contact the IT Department to discuss your department's needs.

- Information Technology works in cooperation with departments to manage a "required" list and a "preferred" list that provides a "menu" of available technology products.
- The "required" list includes the following types of items: PCs and workstations, network equipment, laptops, netbooks, notebooks, software, servers, etc.
- The "preferred" list contains items such as printers or other peripherals that might be required for compatibility with organizational systems.
- Departments are required to purchase from the "required" list when purchasing items that appear on the list.
- Departments should purchase from the "preferred" list when purchasing items that appear on the list if organizational compatibility and/or technical support is an issue.
- Technology products that are not listed on either list that cost in excess of \$5,000 require approval from Information Technology and may require review of the IT Board.
- The Matrix Team manages selections for the lists. Dell and Microsoft Office/Server products are currently on the required list for PC computers and software. See "Procedures for PC & Laptop Purchases" below.
- The preferred list includes HP printers for support from the AS/400 (I-series) systems (necessary for Purchase Order printing).

Standards

Standards are tied to the technology purchasing lists. Information Technology facilitates the formation of standards through the technology purchasing lists. Information Technology

- Keeps choices to as few as reasonably possible to capitalize on standardization
- Tailors support to standards selected
- Makes standards easily available through creation of purchasing channels (the city currently has an agreement with Dell for PC purchases)
- Works with the Matrix Team to develop and set standards





IT-004 PC/Desktop Purchase Procedure

For the latest information, check http://cityhall.hampton.

- Plan your orders for new equipment. PCs are an investment and should be treated as such. While you can purchase PCs at anytime during the year, end of year purchases will cause delays.
- Call the IT Help Desk to request an inventory of your existing equipment to help you manage and plan your replacements.
- The process is simple. Go to www.dell.com and create a quote. Then fill out and print the form available online, make sure it is approved by a level-2 authorized person and send to IT.
- Make sure you have funds available in the supplied budget code or YOUR OR-DER WILL NOT BE PLACED.
- Call us if you have special needs.
- Your quote is guaranteed for 30 days; however you should send your order to IT ASAP to ensure no delays or changes in price.
- We will schedule and coordinate delivery and setup with your office.
- Call IT if you have any questions 311.

To expedite your order: When creating your quote on the Dell site, Under the section "Send this E-quote to your Authorized Buyer", in the "Additional E-Mail Recipients" field, please input helpdesk@hampton.gov and click "Add" before you select "Continue".





IT-005 Change Management Procedure

The Process

Change Management for all IT systems that are used by more than a single department will be coordinated through the Information Technology department process via the Change Management Group. Other City agencies are welcomed to use the process for their internal needs as well.

Routine CMG meetings will occur on a periodic basis in the Information Technology department and will include at a minimum, the Operations and Network Systems Manager, the Tech Support Manager, the IT Director and the Solutions Development Manager and the Records Manager. Other personnel (IT or otherwise) can attend on an as-needed basis if they are coordinating scheduled changes. Any changes, updates, etc. to enterprise systems will be discussed, approved and scheduled for deployment. The change management group will also identify the major user groups that require notification and coordination. Change schedule development will take into account customer and other IT group schedules, impacts and resources.

Changes will be scheduled for non work hours whenever possible to minimize disruption and downtime. Changes made during business hours will be approved by the Director of Information Technology prior to customer notification.

Notifying Users

Once a change has been identified and scheduled, the appropriate member of the change management group will develop an email notification that will originate from the changeman-agement@hampton.gov account. This message must be sent at least *three business days prior* to the application of any planned upgrades and implementations. The message will be in the following format:

- Title of the Change/Update:
- Description & Purpose: A brief description of the change and why it needs to occur
- When: The date/time at which the change will occur
- Who is Affected?: Summary of affected user
- What will Occur: Summary of how it will specifically impact the user group
- **Special instructions:** Procedures to follow to ensure a successful change (i.e. power down your computer before you leave on Friday, January 26, 2011.)





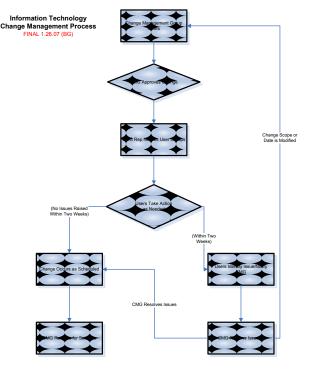
IT-005 Change Management Procedure Continued

End users will then have a window of opportunity to provide feedback to the change management message if there are unforeseen consequences that need to be considered. The Change Management email must be monitored by the manager sending the notice during the two-week period prior to the upgrade unless a shorter time period is approved by the IT Director. The Change Management Group will attempt to resolve any conflicts in a timely manner or reschedule the change deployment as warranted.

Once a change has been deployed, the appropriate CMG member will monitor the change to ensure a successful change has occurred.

Emergency Change Management

Changes that are deemed time-sensitive and cannot be cycled through the traditional process will be authorized by the Director of IT or designee on an as-needed basis. In the event of such emergency changes, IT will make every effort possible to provide as much advanced notification as possible and such changes will be scheduled for after-hours deployment if at all possible.



Our Mission



IT-006 Network & Remote Access Operations Policies and Procedures*

Authorized Users

The following people may be authorized to use the city's network:

Employees who work in City Departments that come under the direction of the City Manager and who have made an official request for access that is approved by the Department's Director.

Other employees outside of the City Manager's organization, whose Agency, Board, or jurisdiction have requested accounts and have been approved by the City Manager's Office. Once the determination is made to extend service outside of the City Manager's organization, these requests will be granted on a case-by-case basis as needs and resources permit. Accounts may be revoked if needs and/or resources no longer permit granting such access.

The Director of Information Technology approves all technology components of the city's network including third-party connections and remote access devices.

Remote Access Services

Employee dial-in, VPN or PC-remote access must be requested by the employee's Department Head. The Director of Information Technology approves all dial-up and VPN requests.

It is the responsibility of employees with dial-in, VPN or PC-remote access privileges to ensure their connection is not used by non-employees to gain access to the city's information system resources. An employee who is granted dial-in, VPN or PC-remote access privileges must remain constantly aware that the connections between their location and the City of Hampton, VA are literal extensions of City of Hampton, VA's network, and that they provide a potential path to the city's most sensitive information. The employee and/or authorized third party individual must take every reasonable measure to protect the City of Hampton, VA's assets. Dial-Up, VPN or PC-remote access users are also subject to the same rules and regulations that apply to the City of Hampton, VA -owned equipment for the purposes of connecting and using the city's network.

Dial-in, VPN or PC-remote access accounts are considered 'as needed' accounts. Account activity may be monitored, and if an account is not used for a period of 1 year the account may expire and no longer function. If dial-in, VPN or PC-remote access is subsequently required, the individual must request a new account/reauthorization to the Department of Information Technology.

* Note: Internet, e-mail, network security policies are located in the IT Security and Acceptable Use Policies located at in Section 9.





IT-006 Network & Remote Access Operations Policies and Procedures*

Dial-in, VPN or PC-remote access users may be automatically disconnected from the City of Hampton, VA network after thirty minutes of inactivity. The user must then logon again to reconnect to the network. Pings or other artificial network processes are not to be used to keep the connection open. Exceptions may be granted on a case-by-case basis.

By using VPN technology with personal equipment, users must understand that their machines are a de facto extension of the City of Hampton, VA network, and as such are subject to the same rules and regulations that apply to the City of Hampton, VA -owned equipment, i.e., their machines must be configured to comply with the Director of Information Technology Security Policies.

Any PC that is granted access and connected to the city's network, regardless of method of connection or ownership, should have the latest possible ant-virus software installed.

Ordering and Billing of Services

The IT Department provides several options for remote access. To order services please contact the IT help desk by calling 311 or e-mail ITHelp@hampton.gov. Users will be charged for network access to the VPN service or other services and any required software.

E-mail, Network and Internet Access is charged on an annual basis at \$100 per user. These are billed through the IT department. Please call 311 or contact ITHelp@hampton.gov with billing issues and problems.

Support and Hours of Operation:

Call 311 or e-mail IThelp@hampton.gov with issues or problems. Support is provided during normal City business hours. This is generally 8 am to 4:30 pm Monday through Friday. Services are available 24 hours a day unless there are planned or unplanned outages.

* Note: Internet, e-mail, network security policies are located in the IT Security and Acceptable Use Policies located in Section 9.





IT-007 E-Mail Operations Policies and Procedures*

E-Mail Operations Policy and Procedures*

Purpose—This policy provides general guidelines for the use of the City of Hampton electronic messaging system. Department Directors may, at their discretion, establish additional policies governing use of these systems by that Department's employees.

It applies to internal e-mail, external e-mail sent or received via the network (including the Internet), and "phone" or voice mail. These guidelines do not supersede any state or federal laws, or any other city policies regarding confidentiality, information dissemination, or standards of conduct.

Capacity

To ensure more reliable back-up capabilities and prevent the rapid spread of viruses that may penetrate our security defenses, all City email account Inboxes are subject to a 150 MB size limitation. Any account that exceeds the limit will no longer be able to send new email messages. However, any new messages sent to the account will be received (up to 500 MB). This limitation includes items in the Inbox, Drafts, Deleted Items, Sent Items and Calendar. Personal Folders and Archived Folders will not have a limitation. All users will be able to continue to receive messages, up to 500 MB.

Why Do We Need to Have Limits?

Each week we complete a full back-up of all City email accounts. Each evening of the week we complete incremental back-ups. These back-ups are used to restore our email accounts if we were to have a catastrophic failure of our email server. Without limits, these back-ups would become too long to be reasonably manageable and practical. Additionally, without the limits, we could contract a virus that would fill our mailboxes and shut down our email server.

By having a limit:

- Our back-up storage requirements (time and size) are significantly reduced, equating to more stable and timely back-ups and restore capabilities.
- Viruses would not be able to jam our email server
- Business documents and communications are stored on file servers, which have more thorough and secure back-up capabilities

* Note: Internet, e-mail, network security policies are located in the IT Security and Acceptable Use Policies located in Section 9.





IT-007 E-Mail Operations Policies and Procedures*

How Do I Check the Current Size of My Mailbox?

Right-click on the **Mailbox – {Username}** item on the left-hand pane of your Outlook screen. Select the **Properties** option at the bottom of the pop-up menu. An Outlook Today box will pop up. Click on the **Folder Size** button at the bottom left of the window. The Total Size of your mailbox is shown in KB. Divide this amount by 1000 to obtain your current size in MB. (i.e. 137118 KB = 137.118 MB)

Exemptions

In order to prevent a virus from completely shutting down our email system, we cannot create an exemption that offers unlimited capacity. However, we will be providing accounts with 500MB limitations (rather than 150MB) for users who routinely deal with extensive email requirements (in volume or file sizes). Directors are advised to discuss such account requests with the IT Director.

Retention of E-Mail, Records & System Management

The Information Technology Department is responsible for the maintenance and management of the city's electronic messaging system.

Employees should not save or retain messages longer than necessary for appropriate business purposes.

Electronic mail sent within our internal mail system is not automatically archived and is **not intended to fulfill records retention law**. Electronic mail received from the Internet is also not automatically archived. It is the responsibility of the account owner to ensure that all electronic mail pertaining to city business is properly archived in some other fashion, such as on the Z:drive or in another folder outside of active mail folders. See the EDMS website for more information on managing your mail.

* Note: Internet, e-mail, network security policies are located in the IT Security and Acceptable Use Policies located in Section 9.





IT-007 E-Mail Operations Policies and Procedures*

Establishing Accounts

Internet and e-mail access will be granted to an employee only as a condition of employment with the agency or department director who granted permission for such access. If an employee should transfer to another department or agency, access will be suspended and can only be reinstated upon written approval by the director of the new department or agency. It is the responsibility of both the department and the employee to notify the Help Desk (311 or ITHelp@hampton.gov) when a change in employment status is being made.

Termination of Accounts

It is the department's responsibility to ensure that accounts are terminated on a timely basis.

<u>Termination of Network Accounts:</u> Departments will follow these procedures to ensure that network and electronic mail accounts are deactivated upon termination of employment.

The department will notify Information Technology Technical Support at least five (5) working days prior to the employee's last day on the job. Exceptions due to terminations or disciplinary actions will be handled on a case-by-case basis and should be reported to the Director of Information Technology for immediate attention.

Information Technology will notify the department when deactivation of accounts is complete.

Ordering and Billing

E-mail, Network and Internet Access is charged on an annual basis at \$100 per user. These are billed through the IT department. Please call 311 or contact ITHelp@hampton.gov with billing issues and problems.

Support and Hours of Operation:

Call 311 or e-mail IThelp@hampton.gov with issues or problems. Support is provided during normal City business hours. This is generally 8 am to 4:30 pm Monday through Friday. Services are available 24 hours a day unless there are planned or unplanned outages.

* Note: Internet, e-mail, network security policies are located in the IT Security and Acceptable Use Policies located in Section 9.





IT-008 Web Site Management Policy

Mission

Provide a 24-hour City Hall for the citizens, businesses and visitors of the City of Hampton.

Goals

To enable citizens and businesses to initiate any transaction required for city services – furthering the objectives of "customer delight"

To be a central resource for City of Hampton community information

To promote the city's core values, priorities and polices

Policy

Government web sites have been gaining wide spread visibility due to the popularity of the Internet as a service medium. Furthermore, new and existing laws, policies and procedures are being tested almost daily as to the legal and political ramifications of the online medium. Examples include privacy issues, the digital divide and even challenges of first amendment violations – all based on Internet related government activities.

To ensure that we thoughtfully plan and deploy online services, departments are required to consult with IT for web based planning and implementations.

Guidelines

The purpose of this policy is to ensure that users can easily locate information while facilitating a means with which to carry on business needs with the city. A unified web presence will help facilitate this objective. By maintaining a common domain name and graphic design, the city can distinguish its information from that provided by other sources. The shift from a department view to a services view will allow an easy and logical progression through the site.

A <u>site map</u> will be maintained to clearly define the site's navigation path. This map can then be used to map the placement of departmental content on the site.





IT-008 Web Site Management Policy

The City of Hampton's Information Technology Department will coordinate and be responsible for the city's web site and assist city departments in achieving a web presence through a <u>Web Project Team</u>. This team will be responsible for designing and maintaining a consistent graphic look for the web site and working with the <u>Web Advisory Council</u> as explained below.

Web pages produced by or for city departments will be <u>guided by a design standard</u> developed by the web team and advisory group. The Web Advisory Council approves and recommends a design for the layout, organizational site map and graphic theme of the web site. City departments will be guided by this <u>layout</u>, <u>organizational site map and graphic theme</u> to achieve a consistent look that is easy to navigate and accessible to the public.

Departments that have been tasked with providing content will be responsible for providing appropriate content on a timely basis (publishing information, databases, means to receive E-mail and E-forms, list server mailings, means to receive transactions).

Feedback regarding the web site should be reviewed on a regular basis. Adjustments to the site should be made if customer feedback identifies such an opportunity.

It will be the responsibility of city departments to routinely check (daily) their web applications to ensure that they are functioning as intended.

Terminology

Design Templates

<u>Layout:</u> This refers to the organization of the screen, the navigational constructs and the positioning and layout of links, pull-down menus, bread-crumbs, columns and other items that make-up the functional structure of a web page.

<u>Site Map:</u> A site map is the organization of the content. A site map organizes a web site into various sections or sub-sites that are then navigated to using the various tools and links available.

<u>Theme:</u> A theme is the color and imagery used in and around the layout of a web page.

A design template brings together the layout, site map and theme to produce what is commonly called the "look and feel".





IT-008 Web Site Management Policy

Publishing Information:

<u>Static</u>: The majority of information currently on <u>www.hampton.gov</u> is static. It is information about city programs and services that can include graphics, links to related information, and the capability for citizens to send E-mail directly to the department whose information is being viewed. Some information has been developed specifically for the Hampton web site, while other information comes from documents that are also available in printed form. Almost all city departments have some basic information on the Hampton web site.

<u>Dynamic:</u> The City of Hampton web site also contains a substantial amount of regularly updated information.

Database Queries:

Making City databases accessible via the Hampton web site is the first step in enabling citizens to carry out individual transactions with the city. Such accessibility is balanced against the need to protect the integrity of city computer systems. There, databases must be placed on a computer located outside the secure firewall.

E-Mail and E-Forms:

E-Mail and E-Forms represent the first stages of facilitating communication with the City of Hampton offices. All City employees with Internet e-mail addresses can now send and receive Internet e-mail, and addresses are available through the on-line City directory.

List Servers:

This technology can further enhance the communication between citizens and City government. Citizens with email capability can receive important date-sensitive information regarding City operations. The current web site does not offer this functionality.

Transactions:

Transactions typically involve some form of payment. Opportunities exist to not only make these transactions easier for citizens, but to save city resources by handling such transactions electronically. It is also important to remember that these transactions need to interface with host systems in order to maximize productivity and efficiency. In some cases increases in revenue may be seen in attracting new markets to city services such as Parks & Recreation. Security and regulation issues will need to be addressed with respect to credit card transactions and the use of a third party to provide this functionality.





IT-008 Web Site Management Policy

Web Teams

The <u>Web Project Team</u> is responsible for the overall City of Hampton web site. This team will work with the Web Advisory Council and is responsible for developing the technical and architectural vision as well as the daily management of the City's Internet web services and sites. The Web Project Team consists of the following skills:

Project Management
Web Content Coordination
Web Applications Development
Web Page Design

The Web Project Team performs system Administration of the City of Hampton web site. Tasks include the following:

Coordinating content development and maintenance.

Managing information taxonomy including City of Hampton main pages.

Managing City of Hampton web services and the operating systems and devices running on them.

Managing the Internet data networks.

Answering or forwarding e-mail addressed to the Web Project Team.

Managing new content provider user accounts and maintaining existing user accounts. Developing and maintaining databases.

Managing technical projects and developing suggested future strategic directions.

Web Advisory Council

The <u>Web Advisory Council</u> is responsible for reviewing and approving content to ensure that it is in agreement with City goals and communications plans, assisting in creating strategic plans, setting priorities, developing standards and guidelines, and will act as an oversight authority for the City's web site management and ongoing development. The Web Advisory Council is made up from staff across the City who are involved in web content design, senior level managers and citizens.





IT-008 Web Site Management Policy

Web Security

Security involves not only protecting data residing on city networks, but also protecting any transactions that occur through our web site. City of Hampton web servers are stored in secured areas. Network firewall security prevents unauthorized network traffic from entering the City's internal networks. Operating system and application user account security prevents unauthorized users from accessing sensitive system functions.

Links

The City of Hampton web site will include links when applicable to provide information to the citizen. All links to other Web sites are identified with a small globe. A pre-determined person, department or team will review all link requests based on the following guidelines:

- Other governments and educational institutions in the state of Virginia, including individual school web sites.
- Non-profit or public organizations that have some relationship to the city.
- Generally recognized community councils and organizations.
- Arts, cultural, sports, major festivals and similar organizations of general interest to Hampton citizens.
- General employment in the Hampton Roads area.
- Tourist information of a non-commercial nature general information about accommodations and sightseeing.

The City of Hampton web site does not generally link to:

- Candidate sites or sites advocating a position on City or other ballot issues.
- Corporate commercial sites. The City of Hampton web site will link to business sites if they are presented as part of a retail development project, neighborhood economic development project, etc.
- Individual personal home pages.
- National sites, although departments may include links to public interest associations and similar organizations.





IT-009 Event Calendar Policy

Mission

Provide a centralized information source for community and city government events.

Goals

To empower city departments by providing the necessary tools for them to post their own events in a timely and efficient manner.

To provide adequate checks and balances for events requiring a Special Event Permit – ensuring the permit application and fees are received and approved prior to that event being posted on the Events Calendar.

To offer a central resource for City of Hampton community events – providing detailed information regarding an event.

To provide adequate checks and balances without slowing down the process.

To provide a user-friendly intuitive Event Calendar application for city departments.

Policy

To ensure that citizens are able to easily retrieve all city-related and/or community events from a single calendar on our website, City of Hampton departments are required to post City / Community events using the Events Calendar application. Departments that maintain event calendars will still be able to offer specific event information on their own web pages.

Special Events require a Special Event permit. All necessary paperwork must be forwarded to the Special Events Office. Once the permit has been issued, the Special Events Office will take responsibility for posting that event on the Event Calendar.





IT-009 Event Calendar Policy

Prior to an event being posted on the City website, the Webmaster will review each event for content. This will be done in a timely manner that should not interfere with the time sensitive nature of the information.

Guidelines

Who can post an event?

- Any city employee with department head approval and appropriate security can post an event on the Events Calendar.
- City Departments must complete an application which can be found on the City's Intranet website. Department Heads must sign this application.
- Employees must attend a mandatory training session on this application before access will be granted. The Department of Information Technology will coordinate these training sessions.
- Once the employee completes the application form and has attended a training session, they will be assigned a user ID and password. They can now post events.

Posting Criteria

- The City of Hampton's Public Communication Office reserves the right to determine which events are of community and/or civic interest. Some sporting events and regularly occurring public activities may not be eligible for posting.
- Only events which occur within the physical boundaries of the City of Hampton shall be considered for approval.
- Events must
- be sponsored by a city government office or non-profit public organization sponsored by a city government office
- All submissions shall be reviewed by the Web Master and/or the Special Events Office before being posted on the City of Hampton website. Departments should allow at least five business days for their events to appear on the Events Calendar.
- The City of Hampton cannot confirm events published on the Events Calendar. Events which appear to be questionable in nature shall be verified with the submitting department and may or may not be approved for posting.
- The Web Master, the Special Events Office and/or the Public Communication Office will schedule periodic evaluations of the Events Calendar.
- Critical changes to events such as dates, times, cancellations and rainouts must be <u>posted immediately</u> by the posting department.





IT-009 Event Calendar Policy

How is the Event Calendar organized?

Events posted on the Event Calendar become part of the City of Hampton's Calendar of Events. They can also be grouped based on department or venue. This will allow a citizen to view specific events based on location or interest.

The following are examples of venue specific calendars:

- Hampton Coliseum
- American Theatre
- Charles Taylor Arts Center
- Hampton Public Library

The following are examples of <u>department specific</u> calendars:

- Healthy Families Partnership
- Neighborhood Office
- City Council (to include City Council meetings, Commission & Board meetings, etc.)
- Parks & Recreation
- Special Events
- Unity Commission
- Coalition for Youth

How do I post an event?

Logon to our website http://hampton.gov and click on Calendar. Enter your User ID and Password. Click on Events and then click on the Plus (+) sign. Refer to the Event Calendar Procedure Manual (available on our intranet site) for specific instructions.

What is the approval process?

The approval process is divided into two areas – events requiring a Special Events Permit and events that <u>do not</u> require a Special Events Permit.

(1) <u>Events requiring a Special Events Permit</u>. Special Event Permits are required if the event meets ALL of the following criteria:

Event is outdoors.

Event is open to the public.

Event is held on public property.





IT-009 Event Calendar Policy

The event requestor must complete a Special Event Application, pay a non-refundable permit fee, and submit both the application and check to the Special Events Office at least 90 days prior to the event.

Once the permit has been issued, the Special Events Office will take responsibility for posting the event on the Events Calendar. Once the event has been posted, the Web Master automatically receives an email notifying him of the request. Upon review, the event is posted on the City's website http://hampton.gov/calendar.html.

The permit application and instructions can be found on our website http://hampton.gov/special-events/.

(2) Events not requiring a Special Events Permit.

Departments can post their own events. Once an event has been posted, the application will check for a possible double booking of venue. After the edit checking process is complete, the Web Master will automatically receive an email notifying him of the request. Upon review, the event is posted on the City's website http://html.gov/calendar.html.





IT-010 Internet Directory

Information Technology will maintain an Internet Directory on the city's web site. Department's are required to provide a street address, telephone number, fax number and e-mail address as a primary contact. Departments may also optionally list a web site for a more detailed listing.





IT-011 Disposal of Obsolete Equipment

This policy only applies to computer equipment and related peripherals, specifically CPUs, monitors, keyboards, printers, cables, modems, scanners and other peripherals.

Application software licenses remain the property of the city for the life of the license with no exceptions. Before PCs are disposed of or declared obsolete, they should be examined for data and licensed programs and appropriately conditioned by the department or their designee.

Step 1 – preparing the equipment:

The department must take the following steps to prepare a PC for disposal:

Remove all data files and business information whether considered confidential or not Remove all licensed software applications (except Operating System)

Delete configuration information relative to the network and e-mail

Monitors with broken glass must be double-wrapped in plastic

Departments may call the Department of Information Technology for assistance.

Step 2– posting to the donor list:

When a department decides they can no longer use a PC they will file a form with IT called the "Computer Equipment Disposal Form" (departments may also use http://cityhall.hampton). A copy of this form will be sent to the property accountant in Finance as evidence that the property has been transferred to IT for inventory purpose. Information will include:

What is it (PC, printer, etc.)?
If it is a PC, what is the speed and RAM, if it is a printer, what type (laser, color impact, etc.)?
What is the serial number?
Where is it physically located?
Who is the primary contact?
Does it work? Is there any noticeable damage?

IT will determine minimum specifications for placing equipment on a departmental "donor list". The donor list will contain equipment a department no longer needs but may be of value to another department.





IT-011 Disposal of Obsolete Equipment

When another department wishes to take the donated equipment, they will e-mail the primary contact (old owner) and make arrangements to have the equipment transferred. This will be done on a first-come first-served basis. IT will be responsible for sending a memo to Finance (with copy to new owner) in order to transfer ownership in the Capital Assets system. IT will be responsible for removing the item from the donor list. IT will ensure date is wiped clean from every device before it is recycled or disposed of in another way.

Step 3 – removing from inventory and arranging pickup:

The recyclers will pickup old equipment at regular intervals throughout the year. IT will coordinate dates and locations and post appropriately. Departments MUST submit an inventory of equipment on the Computer Equipment Disposal Form no later than 15 business days before the next pickup.





IT-012 Naming Conventions

Because technology can be complex, the following standards have been established for naming of physical and logical devices over the network. These naming conventions must be adhered to in order to avoid network conflicts, and to optimize the troubleshooting capabilities of technical personnel.

DNS - PC Domain names are determined by IT.

E-Mail address - FOlastname where F is first initial, and O is an optional initial. Hyphens are okay. No limit to length. Do not truncate last names!

Printer names - for iSeries printers only (network or locally attached printers that will be used to print POs or other AS/400 products) -- DDDBBMN, where DDD is the department abbreviation (be consistent), BBM is the brand and model (for example "HP5"), and N is a numeric number assigned and managed by the department. For all other printers, it is the department's preference, but be consistent!





IT-013 Maintenance of IT Policies

Information Technology will be responsible for maintaining a document containing all IT Board approved policy. As such, all technology policy will be contained in *this* document and updated bi-annually.





IT-014 City Street Naming and Addressing Standards & Policy

Purpose

The purpose of this document is to outline the addressing standards adhered to by the GIS personnel in an effort to enhance the easy and rapid location of structures by law enforcement, fire, rescue, and emergency medical services personnel in the Hampton, Virginia.

Street Naming Policy

No two roads shall be given the same name (ex. Pine Road and Pine Lane or Pinewood).

No two roads shall have similar-sounding names (ex. Beech and Peach or Beach).

Each road shall have the same name throughout its entire length.

A minimum of three (3) choices are required for submission when naming a new private street.

All street suffixes must follow USPS standards as outlined here: http://pe.usps.gov/text/pub28/28apc 001.html#NL508 2

Addressing Policy

Numbers shall be assigned with even numbers appearing on the right side of the road and odd numbers appearing on the left side of the road, as the numbers ascend.

The number assigned to each residential structure shall be designated by the location of the front door to the street at the onset of a building permit.

The number assigned to each commercial structure shall be designated by the location of the main entrance of the business to the street at the onset of a building permit.

Every structure with more than one principle use or occupancy shall have a separate number for each use or occupancy, i.e. duplexes will have two separate numbers; apartments will have one street address with an apartment number, such as 235 Maple Road, Apt 2.

Vacant lots shall not be addressed. Such lots will only be addressed with an approved site plan or at the onset of a building permit. If a vacant lot requires reference, it shall be referred to by LRSN.

All numbering suffixes must follow USPS standards as outlined here: http://pub28/28apc 002.html#NL508 3\

All other circumstances shall be addressed at the discretion of the GIS Office.

Exemptions

Whereas the assigned street name or street numbering scheme assigned by the G.I.S. office is un-satisfactory to the requestor, an exemption request will be logged and forwarded to the City Manager's office for final approval.





IT-015 Assigning Equipment

In order for a department to maintain or improve its level of productivity and carry out its mission, a department head may provide an employee with the equipment necessary to perform his/her job at home or at a location other than a city office. This includes but is not limited to the installation of telecommunications connections as necessary.

In order to maintain uniform records of our capital assets across the city, all department heads will use the "Letter of Understanding" to document all city equipment that has been authorized for use at an employee's home and/or at a location other than a city office.

Authorization for use of equipment at home or at a location other than a city office expires on the return date or six months from the date of approval, which ever comes first.

As necessary, department heads will conduct a review of each "Letter of Understanding" every six months at which time the department head will determine whether the circumstances that necessitated special accommodations or arrangements remain. After said review, the department head will date and sign the "Periodic Review Form".

Equipment will be maintained by the department in a manner consistent with normal maintenance procedures.

A copy of the Letter of Understanding and Periodic Review Form can be obtained by contacting Information Technology.







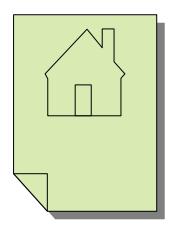
IT-016 Data Purchasing

The real estate file is sold at \$280 a copy. This price is based upon 2 hours of labor at \$50/hour, 1 hour at \$125/hour, \$5 for materials, and a \$50 equipment usage fee.

Partial data extracts and reports are as follows:

The price for data extracts is \$125/hour labor (prorated to nearest 15 minute increment), plus materials, and a \$50 equipment fee for extracts with labor costs exceeding 2 hours.

For small items (1-2 pages), extracts are provided free of charge if labor is "incidental" (less than 15 minutes) and requested "on occasion".

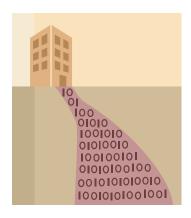






IT-017 Data Warehouse

Information Technology is charged with developing and managing a data warehouse that will function to provide centralized access to organizational data. Information Technology will work in cooperation with other departments to define data formats, naming conventions and common indexing formats (such as street address). Information Technology will survey departments on the data that they currently store and develop a catalog of available data to share with departments. Information Technology will survey departments on their data needs that are not currently part of the data catalog and work to develop appropriate solutions. Information Technology will work to store into the warehouse those data items requested by departments.







IT-018 Data Sharing Policy in Regard to Constitutional Offices

<u>Purpose</u>: To ensure that appropriate legal protections are in place prior to running reports or sharing data utilizing data from a constitutional office for a different department.

Policy: All IT staff members who generate reports utilizing the data from a constitutional office for use by another office or department (i.e., business license data from the Commissioner of Revenue for a report for Economic Development), the staff member must have the requesting department show evidence in writing or electronically of an appropriate approval from the source constitutional officer before any reports are generated.

Procedure:

Any time an IT staff member generates a report utilizing the data from a constitutional office for use by another office or department (i.e., business license data from the Commissioner of Revenue for a report for Economic Development), the staff member must have the requesting department show evidence in writing or electronically of an appropriate approval from the source constitutional officer before any reports are generated. IT staff are to ensure that the approval is from an individual authorized to approve the request, preferably the constitutional officer. This applies whether this is a new report or one that was created previously that is being re-run in order to get the latest data. It is critical that this approval take place prior to IT work being started as there are legal ramifications that are at work.

This same policy applies for other data uses such as data sharing, interfaces or extracts. If a staff member is pulling data out of one of the constitutional office databases in order to share with another organization, company, department, etc. -- any entity -- then approval is required.

Requests are to be documented and tracked in the department's ticketing system and the supporting approval documents are to be referenced with the request. The approval document should be in a place that can be easily referenced by the employee, their manager or other appropriate IT staff in the event of any questions or issues.

Constitutional offices include:

Commissioner of Revenue Treasurer Sheriff Clerk of Court Commonwealth Attorney





IT-019 Data Transfers Procedure

Purpose:

Technical applications staff in IT may need to perform data transfers on production systems from time to time in the normal course of application maintenance and support. IT engineering staff must be informed and included where appropriate to provide adequate backup support and prevent data loss.

Procedure:

- 1. Technical applications support staff will initiate a service request in Issue Trak to IT engineering staff requesting a snapshot or other appropriate backup of the system preparing to transfer data. The service request should provide an approximate date with the transfer will occur and applications staff and engineering staff will negotiate a firm data for the process. Both teams are to work together on plans for a successful transfer.
- 2. Engineering will notify the requestor that the appropriate backup is complete through an update on the service request.
- 3. Technical applications staff will perform the data transfer and test the systems and verify data. Customers should be included as much as possible to verify data integrity and approve any data transfers.

Technical applications support staff will note the acceptance of the data transfer after testing and note that on the service request.





IT-020 Acceptable Use Policy

1.0 Overview

The goal of the Acceptable Use Policy (AUP) is to protect the City of Hampton's IT assets and provide guidance to all employees on proper use for equipment and network services. Information Technology's intentions for publishing an AUP for Hampton is not to impose restrictions that are contrary to the City of Hampton's established culture of openness, trust and integrity. IT is committed to protecting employees, partners and the city from illegal or damaging actions by individuals, either knowingly or unknowingly.

Internet/Intranet/Extranet-related systems, including but not limited to computer equipment, software, operating systems, storage media, network accounts providing electronic mail, web browsing, social media and file or data transfers are the property of the city. These systems are to be used for official city business purposes in serving the interests of the city, and of our citizens in the course of normal operations. Please review Human Resources Policy Chapter 2.2 for further details.

Effective security is a team effort involving the participation and support of every city employee and affiliate who deals with information and/or information systems. It is the responsibility of every computer user to know these guidelines, and to conduct their activities accordingly. Being informed is a shared responsibility for all users of the City of Hampton's information systems. Being informed means, for example:

- Knowing these acceptable use policies and other related rules and policies
- Knowing how to protect your data and data that you are responsible for
- Knowing how to use shared resources without damaging them
- Knowing how to keep current with software updates
- Knowing how to report a virus warning, a hoax, or other suspicious activity
- Participating in training

2.0 Purpose

The purpose of this policy is to outline the acceptable use of computer equipment on the City's computer network. These rules are in place to protect both the employees and the City. Inappropriate use exposes the city to risks including virus attacks, compromise of network systems and services, and legal issues.

3.0 Scope

Compliance with this policy is <u>mandatory</u> for all city officials, employees, agency, boards, committees and contractors of this organization. Police IT and it users are also included in this policy. For the purposes of this document, this group of individuals will be referred to as "Users". This policy also applies to all information, computer systems and data that are used for official city business regardless of its location. This policy applies to all equipment that is owned or





IT-020 Acceptable Use Policy

eased by the city. This policy also applies to all individuals who operate this equipment. In addition, users must still abide by local state and federal laws and regulations as well as established city policy while using computer systems. Examples include, but are not limited to:

- Laws governing copyright and intellectual property
- State regulations regarding document retention http://www.lva.virginia.gov/agencies/ records/
- Laws concerning privacy and freedom of information
- City of Hampton, 2006 Technology Management Guide This will be updated as new policies are developed

4.0 Policy

4.1 General Use and Ownership

- 1. While the IT Department desires to provide a reasonable level of privacy, users should be aware that the data they create on city systems remains the property of the City of Hampton. Because of the need to protect the city's network, employees should have no expectation of privacy regarding the use of the City's technology systems.
- 2. Users are responsible for exercising good judgment regarding the reasonableness of system use. Users should be guided by IT policies on such use, and if there is any uncertainty, employees should consult their director, manager, supervisor or IT Help desk.
- 3. All technology systems usage is subject to inspection to ensure compliance with city policies; any suspected breeches of security shall be audited by the City Manager or designee at any time with or without notice.
- 4. Many of the Information Systems used by the City require passwords. Users passwords should NEVER be shared with anyone, including members of IT staff, nor should any efforts be made to obtain the password of another user. If anyone requests your password, this activity should be reported to the department's Director and IT Director immediately.
- 5. Anyone that connects to the City Network will be assigned a unique user name and password and is expected to maintain their password. The sharing of user accounts to log onto systems is not permitted.





IT-020 Acceptable Use Policy

o attempt should be made to obtain a level of rights on a system beyond what has been expressly granted. Examples of this include attempting to log onto a system with another user's login name, accessing an application or system through back-door access, or the use of hacking tools.

4.2 Workstation Use

- 1. Users should never leave their workstations in an unprotected state. If a user anticipates being away from their PC or workstation, they should either log off of their PC or lock it by pressing CTRL+ALT+DEL and selecting "Lock Workstation". Screen Saver passwords, which will lock a workstation once a screen saver is activated, are highly recommended. Screen savers should be set to activate after 10 minutes or less of inactivity.
- 2. Any applications installed on a user's PC must be approved by IT and directly related to fulfilling their job responsibilities. New applications must work without requiring administrative rights on PCs or workstations.
- Members of IT Technical Support and Engineering staffs maintain administrative level access to all network-connected PCs on the City network. Attempts to block or override this level of access are prohibited.
- 4. Any foreign media (CD-Roms, USB flash drives, removable hard drives, etc.) will be scanned for viruses or other malicious content before files are opened or copied from them. Users can contact the IT Helpdesk (727-6421 or ithelp@hampton.gov) for assistance.
- 5. Anti-virus and/or Anti-malware software will be installed on every PC attached to the city network. Users are prohibited from interfering with the operations of this software. This includes attempts to uninstall or disable the software.
- 6. Each user has been allocated disk space on a network file server for storage. Users can access this storage by selecting their Z: drive in Windows Explorer. Users should save their documents to their network drive to ensure that they are backed up for disaster recovery purposes. Network storage spec is for work related information only. Content of a personal nature should not be stored on network drives.





IT-020 Acceptable Use Policy

4.3 Local Area Network Use

The Information Technology Department maintains a robust data/telecommunications network which enables users to conduct business as efficiently as possible. This network joins all city-owned PCs on a common communication platform, as well as enables Internet communication.

PCs and other network-based devices, such as printers, can only be attached to the network with approval from IT.

The connection of personal devices to the City network is prohibited unless approved by the IT department. This includes but is not limited to printers, faxes, monitors, PCs, laptops, storage devices, and network devices.

The IT Department is solely responsible for configuring devices to communicate on the network. Attempts to override IT configured settings are prohibited. IT may designate and approve individuals to configure devices. IT will require proper training and process compliance before the designation is approved.

Network expansion devices, such as wireless access points, switches, or hubs, are installed and managed exclusively by IT. These types of devices, when purchased through local retail stores, are designed for home use, and can introduce significant security vulnerabilities to the City network. Installation of these devices by anyone other than IT staff is prohibited.

Only select members of IT staff are allowed to actively monitor the City Network. The use of network monitoring tools by non-IT staff is prohibited.





IT-020 Acceptable Use Policy

4.4 Remote Access Use

- 1. IT provides a number of Remote Access and Virtual Private Network (VPN) solutions to its users. These are the only approved remote access services to connect to the City of Hampton's network. Department heads or their designee will approve all user remote access requests. These approved services include:
- a. Client-Based VPN This solution provides a seamless connection between the remote user's PC and the Hampton internal Network. This is the most secure and stable solution the City provides.
- b. Web-Based SSL VPN This solution allows a user to make a secure connection to the inside of the City's network. This method is slower than the client-based solution. Users that utilize this solution on a foreign PC may also experience browser compatibility issues.
- c. Remote Access PC Software This solution is a 3rd party solution for Remote Access. This solution allows for a user to install a small application on their office PC which then makes a connection to an Internet based server. This user can then make a connection from any PC to the same Internet server to establish a remote session to their desktop at work. This is not IT's preferred solution and will be used on an exception basis.
- d. When a user requests a new Remote Access Connection, the client-based VPN will be provided unless there is a specific business requirement that is not met by the client solution.
- e. Any user who is connecting to the City network from their home PC is responsible for the security settings of that PC. This includes ensuring that Antivirus and Anti-malware software is installed and up-to-date with the latest definitions, and that Windows Updates are current. The IT Department may refuse any user the right to use their home computer for access to the city's network.
- f. Vendors that require Remote Access will be provided with a client-based VPN solution. IT will support WebEx or GoToMeeting style sessions when a member of the IT staff is available to attend and view the session while the vendor is connected. Vendors will be required to complete and return a "Letter of Agreement for Remote Access to the City of Hampton Network" to the IT Department before Remote Access will be provided.

The use of 3rd party Remote Access tools (including GoToMyPC connections not coordinated through IT) to establish either an inbound or outbound connection between and external PC and a PC on the City network is prohibited unless approved by the IT Department.





IT-020 Acceptable Use Policy

4.5 Internet (Web) Use

- Web browsing and social networking activity should be limited to business-related sites..
- 2. Sites that stream video or audio are generally not permitted from the City network. Users that require this access for business reasons will be required to provide a business case in writing for this access.
- 3. IT maintains a web filtering appliance that monitors web-related traffic on the network. IT actively blocks the following types of contents. Department heads or their designee may request access to blocked sites for employees where it is necessary for business functions.
- a. Sites known to contain malware/spyware/adware
- b. Advertisements/Pop ups
- c. Adult and pornography
- d. Confirmed span sources
- e. Known hacking sites and sources
- Keyloggers and monitoring
- g. Nudity
- h. Online gambling
- Proxy avoidance and annonymizers
- j. Phishing and other known fraud sites
- k. Online personal storage
- 1. Instant messaging
- m. IT can generate activity reports for any user when requested by a Department Head.
- n. If IT discovers in the course of troubleshooting a network or PC related issue that an user's web activity is adversely affecting normal business operations, this will be reported to the appropriate manager/Department Head.
- O. Sensitive information should never be entered onto a 3rd party web form unless the site is secure. Users can quickly identify a secure site by locating a small lock icon on the bottom of their web browser. If there is any doubt, the user should contact the IT Helpdesk for assistance.
- p. Instant Messaging utilities contain a large number of security vulnerabilities, and are not permitted on the network, unless a user provides a defined business need for such a service.
- $q_{\rm ...}$ The use of P2P (peer to peer) services are prohibited. Examples include BitTorrent and LimeWire.





IT-020 Acceptable Use Policy

4.6 Electronic Mail (Email) Use

- 1. Email should be used for business use only.
- 2. Email is not designed for the transfer of large files. Files larger than 2 MB should not be sent using email. If a user must transfer a larger file to a user or a group of users, they should contact the IT Helpdesk for alternate methods.
- 3. Chain emails and spamming are an abuse of the City's email system, and are not permitted. This includes spreading email without good purpose to an individual, group, or system.
- 4. "Bombing", which is the flooding of users, groups, or systems with large email messages, is not permitted.
- 5. The use of the "City Employees" distribution group should be limited as much as possible and should be only for business reasons. Please consult with your manager prior to using this group for any communication.
- 6. The "IT Department" distribution list should not be used to report issues. All IT-related issues should be reported to ithelp@hampton.gov.
- 7. Spam is unsolicited email sent from a 3rd party agent outside of the city. IT maintains a spam-filtering appliance, which attempts to filter out junk email from a users' inbox. However, since all Spam filtering solutions are rules based and reactive, no spam solution is full-proof. Therefore, if a user is repeatedly receiving unsolicited email, this email should be forwarded to spam@hampton.gov and then deleted.





IT-020 Acceptable Use Policy

- 8. Phishing is a type of malicious email that appears to be from a legitimate source, such as a financial institution, that requests that you click on a web link and enter in sensitive personal information. Attackers then use the information provided to engage in identify theft. As with spam, IT actively filters phishing emails intended for city employees. However, if you do receive this type of email, simply delete it. Users may also opt to forward the e-mail to spam@hampton.gov for further investigation and to notify other at risk departments. You should NEVER respond to any email that is requesting any of the following items:
- a. Social Security number
- b. Credit Card numbers
- c. Passwords
- d. Bank account numbers
- e. Information specific to the City's network or telephone system.
- f. Spoofing is a technique used for spam and phishing, where the sender makes it appear that the email originated from a different source. The email may appear to be from you and also to you, or it may be to you but is not from the apparent sender. Attackers use these spoofed emails to get you to click on virus links, and also to obtain personal information from you. If you suspect you have been spoofed, simply delete the email.

Email storage is a limited resource, and it is the responsibility of the user to maintain and manage their mailbox. IT enforces a maximum mailbox size of 150MB. If you receive an email, and you do not have a business need to keep it, you should delete it immediately. In addition, sent items and deleted items folders should be purged on a regular basis. Email deletions should be made in accordance with the state's records retention laws. Please see the City's records Management Manual for more specific guidance on email deletions and retention methods.





IT-020 Acceptable Use Policy

5.0 Social Networking Use

Social networks are online communities of people or organizations that share interests and/or activities and use a wide variety of Internet technology to make the interaction a rich and robust experience. Examples of social networking services include blogs, Facebook, MySpace, LinkedIn, Twitter, Second Life and many others. This also includes forms of online publishing, discussion groups; file sharing, user generated video and audio and virtual worlds. Employees that choose to participate in social networks as a City employee shall adhere to the following.

- City policies, rules, regulations and standards of conduct apply to employees that engage in social networking activities while conducting City business. Use of the City's e-mail address, website and communicating in your official capacity will constitute conducting City business.
- Departments have the option of allowing employees to participate in existing social networking sites as part of their job duties. Department heads may allow or disallow employee participation in any social networking activities in their departments for business use.
- 3. Protect your privacy, the privacy of citizens and the information that the City holds. Follow all privacy protection laws like HIPPA and protect sensitive and confidential City information.
- 4. Follow all copyright laws, public records laws, records retention laws, fair use and financial disclosure laws and any others that might apply to the City or your functional area. Contact the City's Records Manager by contacting the IT helpdesk (ITHelp@hampton.gov) if you have any questions on records.
- 5. Do not site vendors, suppliers, clients, citizens, co workers or other stakeholders without their approval. When you do, make a reference and where possible link back to the source.
- 6. Make it clear that you are speaking for yourself and not on behalf of the City. If you publish content on any website outside of the City of Hampton and it has something to do with the work you do or subjects associated with the City, use a disclaimer such as this: "The postings on this site are my own and don't necessarily represent the City's positions or opinions."





IT-020 Acceptable Use Policy

- 7. Do not use ethnic slurs, profanity, personal insults, or engage in any conduct that would not be acceptable in the City's workplace. Avoid comments or top ics that may be considered objectionable or inflammatory.
- 8. If you identify yourself as a City employee ensure your profile and related cont ent is consistent with how you wish to present yourself with colleagues, citi zens and other stakeholders.
- 9. Correct your mistakes, and don't alter previous posts without indicating that you have done so. Frame any comments or opposing views in a positive man ner and don't pick a fight or harass others on the Internet.
- 10. Add value to the City of Hampton through your interaction. Provide worthwhile information and perspective.

6.0 Enforcement

Any employee found to have violated this policy may be subject to disciplinary action, up to and including termination of employment.





IT-021 IT Security Policy

1. INFORMATION TECHNOLOGY (IT) SECURITY POLICY STATEMENT

1.1 Background

The City of Hampton (COH) relies heavily on the application of information technology (IT) for the effective delivery of government services. Rapid and continuing technical advances have increased the dependence of COH departments on IT. COH data, software, hardware, and telecommunications are recognized by departments as important resources and must be protected through an IT security program.

The IT security program shall be built on the concept of public trust. The City's IT security program provides a sustainable and consistent approach to IT security that can be replicated across networks, applications, and transactions.

1.2 Guiding Principles

The following principles guide the development and implementation of the COH IT Security Program.

COH Data is:

A critical asset that shall be protected;

Restricted to authorized personnel for official use.

IT Security must be:

A cornerstone of maintaining public trust;

Managed to address both business and technology requirements;

Risk based and cost effective;

Aligned with COH priorities, industry-prudent practices, and government requirements:

The responsibility of all users of COH IT systems and data

The Security Triad – The City's IT Security Policy follows the concepts of the IT security triad. The classic security triad is based on three tenants: confidentiality, integrity, and availability. Each of these tenants offer some level of protection, but the combination of these tenants allows the city to keep data private where appropriate, insure data has not been corrupted, and keep the systems up and running.

Confidentiality – The concept of protecting confidentiality relies on defining and enforcing appropriate access levels of information.

Integrity – This is the concept of protecting data from modification or deletion by unauthorized individuals and ensuring that authorized individuals have safeguards in place to reduce





IT-021 IT Security Policy

the risk of damage, corruption or deletion of data by intentional or unintentional actions.

Availability – This concept refers to the availability of the data. It includes ensuring that systems, access methods and data are available and working properly to perform the business functions

Statement of Policy

It remains the policy of the COH that the IT Department and each department head is responsible for the security of the department's data and for taking appropriate steps to secure IT systems and data through the implementation and enforcement of IT policies and procedures.

Departments that have access to or handle data that is subject to legislations, regulations and/or industry standards such as Health Insurance Portability and Accountability Act of 1996 (HIPPA), Internal Revenue Service (IRS) 1075, the Privacy Act of 1974, the Payment Card Industry (PCI) standard, the Rehabilitation Act of 1973, the Federal National Security Standards, etc., shall inform the IT department if appropriate and shall include the respective requirements within the department's policies and procedures. IT will establish procedures as appropriate for systems requiring specific legal or regulation requirements as needed by departments.

The function of this policy is to protect COH IT systems and data from credible threats, whether internal or external, deliberate or accidental. It is the policy of COH to use all reasonable IT security control measures to:

Protect COH data against unauthorized access and use;

Maintain the integrity of the data

Ensure COH data residing on any IT system is available when needed

Comply with appropriate local, federal, state and other legislative, regulatory and industry requirements

The remainder of this policy document is divided to subcategories for ease of use.

Section 2. addresses key IT Security Roles and Responsibilities

Section 3. addresses the IT Security Program and Standards

Section 4. addresses IT Security Compliance

Section 5. address the IT Audit Process

KEY IT SECURITY ROLES & RESPONSIBILITIES

This section defines the key IT security roles and responsibilities included in Hampton's IT Security Program. It is important that everyone in the organization participate and promote IT security in order to have a successful program and protect IT assets and data.





IT-021 IT Security Policy

IT Governance Board

Approves IT Security Policies

Directs the IT Department to develop appropriate policies and standards where necessary

Recommends IT Security Audits and Risk Assessments for the IT Department and other City Departments responsible for IT infrastructure and applications

Reviews Risk Assessments, disaster recovery plans and tests, and IT Security Audit reports and approving corrective action plans.

Assists the IT Director in the promulgation and enforcement of IT Security Policies

IT Director & Staff

Develops policies, procedures and standards for assessing the security risks, determining the appropriate security measures and performing security audits of City IT assets.

Administers and maintains the COH IT Security Program

Provides solutions, guidance and expertise on IT security

Maintains awareness of the security status of sensitive systems

Prepares, disseminates and maintains IT security policies, standards, guidelines and procedures as appropriate

Collects data relative to the state of IT security in the COH and communicating as needed

Provides consultation on balancing an effective IT security program with business needs Develops and tests a disaster recovery plan for IT managed resources

Reviews and approves the COH IT portion of the Emergency Operations Plan and Continuity of Operations Plan, to include the IT Disaster Recovery Plans for all City Departments operating IT infrastructure

Develops and maintains an IT security awareness program for COH employees Coordinates and provides IT security information to the departments

Department Heads and Department Managers

Promotes IT security safeguards and assists in the enforcement of this policy and the Acceptable Use Policy

Supports and facilitates the communications process between the IT department and departmental users

Promotes IT security awareness programs and enables employees to carry out their responsibilities for securing IT systems and data

Escalates problems, requirements, and matters related to IT security to the highest level necessary for resolution

For departments that maintain their own IT infrastructure these additional duties apply





IT-021 IT Security Policy

repares, disseminates and maintains IT security policies, standards, guidelines and procedures for their departmental systems

Develops and tests annually an IT Disaster Recovery plan for critical systems under their control

Follows all IT security policies and standards in this document as they pertain to systems under their control

Manages risk and develops any additional IT security policies and procedures required to protect the system in a manner commensurate with risk.

Designates a system administrator for the system

Adheres to other portions of this policy that addresses departments owning and maintaining their own systems and infrastructure

Data Owner – The Data Owner is the department manager responsible for policy and practice decisions regarding data. This is generally the department that has responsibility for the business process supported by an IT system. The data owner is responsible for the following:

Evaluates and classifies sensitivity of the data

Defines protection requirements for the data based on the sensitivity of the data, any legal or regulatory requirements and business needs

Communicates data protection requirements to IT or the system administrator Defines requirements for access to the data

System Administrator – The System Administrator is an analyst, engineer, consultant or technical staff member who implements, managers and/or operates a system or systems at the direction of the IT department, system owner or data owner. The system administrator assists departmental management in the day to day administration of IT systems and implements security controls on IT systems for which the system administrator has been assigned responsibility.

IT System Users – All users of COH IT systems including employees, elected officials, volunteers and contractors are responsible for the following:

Read and comply with IT security requirements and policies

Report breaches of IT security, actual or suspected, to the IT department.

Take reasonable and prudent steps to protect the security of IT systems and data to which they have access.

Follow the IT Acceptable Use Policy and other appropriate IT policies and procedures

Participate in IT Security Awareness activities





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.7 **Departments Owning and Managing IT Infrastructure and Critical Systems** – The City of Hampton has several departments that own, manage and operate IT infrastructure or IT services for use by their department or other associated departments with limited or no support from the City's IT department. These department staff must develop and implement appropriate security policies and procedures that meet or exceed those described in this policy. A full description of IT security responsibilities for these departments is listed in Attachment A.

IT SECURITY PROGRAM COMPONENTS AND STANDARDS

The policy of the COH is to secure its IT systems using methods based on the sensitivity of the data processed and the risks to which the systems and data are subject, including the dependence of critical department business processes on the data and systems.

- 3.1 **Risk Management** The IT department will conduct an IT Risk Assessment every three years. Departments that manage critical infrastructure will also conduct IT Risk Assessments every three years. See Attachment A. The City's standard for Risk Assessments will include the following components:
 - a. Inventory IT Assets and Critical Systems
 - b. Assess Data Center Vulnerabilities
 - c. Confirm Disaster Recovery Plan (DRP) within the business context
 - d. Assign Priorities of Assets
 - e. Document, Track and Manage Risks

Risk Assessment reports will be presented to the IT Governance Board with recommendations from the IT Director. The IT Governance Board will provide guidance, direction and approve recommendations to reduce risks. The IT Governance Board will also assist the IT Department in identifying funding sources and obtaining funding for approved major projects to reduce IT risks.

Contingency and Disaster Recovery Planning – IT contingency planning defines processes and procedures that plan for and execute recovery and restoration of IT systems and data that support essential business functions if an event occurs that renders the IT systems and data unavailable. IT continuity of operations includes continuity of operations planning (COOP), disaster recovery planning, and IT system back up and back up restoration. The Virginia Department of Emergency Management provides COH guidance on COOP planning. The City Emergency Operations Center manages the city's COOP plan. Disaster Recovery Planning supports Continuity of Operations Planning by defining specific policies and procedures for restoring IT systems and data that support essential business functions, on a schedule that supports City mission requirements. IT system back up and restoration





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efines plans and restoration schedules that meet department mission requirements for the back up and restoration of data. The city's standards for DRP, back up and restoration are as follows:

- a. Critical data is incrementally backed up daily and a copy is stored in Hampton off site
- b. A full back up of critical data is completed weekly and a back up copy is stored outside of Hampton's flood zone
- c. A disaster recovery plan for all critical systems should be in place
- d. The DRP will rely on and support the COOP plan as produced by the City's Emergency Operations Center.
- e. Testing of the disaster recovery plan will be on a component basis and will occur annually or as necessary.
- f. Tests of back up restorations will take place where it is feasible and does not put production systems at risk. The tests will occur annually unless there are major infrastructure or configuration changes that warrant additional testing.
- 3.3 **IT System Security** The purpose of IT systems security is to define the standards necessary to provide adequate and effective protection for City systems in the area of system hardening, system interoperability security, malicious code protection, logical access controls, data protection and network threats. All system security is managed solely by the Department of Information Technology and by designated department administrators. Departments managing their own IT systems are subject to the IT system security standards. The Acceptable Use policy identifies additional standards for end users.

IT system security standards are as follows:

- a. All servers and desktops shall have the currently supported standard Antivirus software installed.
- b. All servers will be patched on a regular basis
- c. Support contracts for critical assets should be maintained and provide for the level of service necessary to support the business criticality of the system
- d. UPS and redundant power should be installed on all systems that are deemed to support critical systems
- e. Password procedures shall be implemented and the password strength policy should be based on the sensitivity of the data being protected. Strong passwords and forced password changes on at least a 90 day basis should be used for systems with sensitive data. Default passwords shall never be used. Passwords shall not to be shared for any reason.
- f. User accounts shall be unique to the individual. Shared accounts should only be used on an exception basis as approved by the Information Technology Director.





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- . Users will not have administrative rights on PCs. Users needing this capability must contact the Department of Information Technology with a justification and must be adequately trained to ensure proper security controls.
- h. Users dialing in with PC software are to notify the Department of Information Technology and register their connection to prevent unauthorized access.
- i. The City has an established process to identify and evaluate threats and assign appropriate action based on risks.
- j. Firewalls must be implemented where appropriate and have security logging turned on.
- k. The City will deploy a multi-layered protection at the Internet gateway, the network server and desktop levels to prevent the introduction of malicious code into the system.
- I. System and/or data access must be explicitly granted to personnel by the system or data owner. Departments will put procedures in place to explicitly grant access. A periodic review of access to systems by individual users of the data will be conducted by IT and the Department Data Owner. Default access will not be allowed.
- m. Only approved members of the IT Engineering staff will maintain full administrative rights on City servers regardless of location or purpose. Other individuals within IT may have admin rights to specific servers on an as needed basis. Departments that manage their own servers will limit server admin rights to only specific individuals with a high level of technical and security knowledge. The IT Director will provide guidance and recommendations to departments on the skills and knowledge needed by server administrators. The list of server administrative staff in other departments will be maintained by the IT department engineering staff.
- 3.4 Facilities Security Physical security safeguards provide a first line of defense for information resources against physical damage, physical theft, unauthorized disclosure of information, loss of control over system integrity and interruption to computer services. Standards for facilities are as follows:
 - a. Mission critical system facilities must be located in a secure location that is locked and restricted to authorized personnel only.
 - b. Access to critical computing hardware must be controlled by rules of least privilege.
 - c. System configurations (Hardware, wiring, displays, and networks) or critical systems must be documented. Installations and changes to those physical configurations must be governed by a formal change management process.





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- 3.5 **Personnel Security** Personnel security refers to those practices, technologies and/or services used to ensure that personnel security safeguards are applied appropriately to those personnel working for, or on behalf of the City. Security standards below apply to personnel:
 - a. Separation of duties and least privilege principles shall apply to all critical systems and to other systems where appropriate. In cases where there are not the personnel or processes available to support this, additional monitoring and logging will be applied by IT, the system administrator and/or the data owner. Separation of duties refers to dividing roles and responsibilities so that a single individual cannot subvert a critical process. Least privilege refers to granting a user only those accesses that they need to perform their official duties.
 - b. Background screening for all employees will take place as per the Human Resources policy. The City IT department will assume that personnel screened by Human Resources and approved for employment in positions requiring system access will not require additional screenings in IT. Departments may perform their own additional screenings as desired. An additional procedure for approving IT contractors will be in place.
 - c. System and/or data access must be explicitly granted to personnel by the system or data owner and not allowed by default. IT and department data owners will have procedures and controls in place to track system access.
 - m. Access must be terminated concurrent with when the requirement for access no longer exists, i.e., termination, transfer, promotion, retirement, or change of duties. Departments shall notify the IT department as soon as these changes take place to ensure compliance. IT and departmental data owners will have procedures in place to ensure the timely and accurate termination of access.
- 3.6 Incident Management Incident handling refers to those practices, technologies and/ or services used to respond to suspected or known breaches of security safeguards. Information technology security incidents refer to deliberate, malicious acts which may be technical (e.g. creation of viruses, system hacking) or non-technical (e.g. theft, property abuse, service disruption). The standards below apply to City security incident management.
 - The city will have in place an incident process which identifies the responsibilities and actions to be taken in response to incidents.
 - Information on how and when users report incidents will be periodically sent to users to reinforce use of the process.
- IT Asset Management IT asset management concerns protection of the components that comprise COH IT systems by managing them in a planned, organized and secure fashion. Standards for asset management apply to the City's IT department as well as departments





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hat own and/or manage infrastructure, software and services supporting City functions. The IT standards for the City Asset management are as follows:

Change control processes will be in place and documented

Software licenses will be managed and be in compliance with contractual and legal obligations and terms. Illegal and unlicensed (unless in the public domain) software will not be allowed in the City's IT environment. Departments downloading software from the Internet will be responsible to ensure that legal terms are met and adhered to. Departments will notify IT of new software downloads and purchases.

IT will maintain an inventory of software purchased through the IT department for end user and enterprise systems.

Physical IT assets will be tracked and a record of the asset will be maintained IT and departments managing infrastructure will maintain up to date configurations of servers, software, networks and other critical system components.

The IT Department will approve all servers, software, configurations and network access of systems that access and/or utilize COH network resources.

Application Security - Encompasses measures taken throughout the application's life-cycle to prevent exceptions in the <u>security policy</u> of an <u>application</u> or the underlying <u>system</u> (<u>vulnerabilities</u>) through flaws in the <u>design</u>, access threats, <u>development</u>, <u>deployment</u>, upgrade, or <u>maintenance</u> of the application. The IT standards for the City application security are as follows:

- IT or the department maintaining the application will maintain copies of software applications contracts, maintenance agreements, software changes, upgrades, configurations, source code, up to date vendor contacts and escalations, and other critical information to the maintenance and operation of the application.
- A list of all departmental applications will be maintained by IT with appropriate contact information.
- Application system administrators will be identified and properly trained on the operation of the system and the processes for changes and updates. IT will maintain a list of application system administrators
- Departments will develop secure processes for granting application access to only appropriate users.

COMPLIANCE – Compliance activities are performed and managed to ensure that security measures continue to remain in place and are adhered to by all individuals.

Monitoring Activities - Monitoring is used to improve IT security, to assess appropriate use of





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OH IT resources and to protect resources from attack. Use of COH IT resources constitutes permission to monitor that use. There is no expectation of privacy when utilizing IT COH resources. The City of Hampton reserves the right to:

Review the data contained in or traversing COH IT resources

Review the activities on COH IT resources

Act on information discovered as a result of monitoring and disclose such information to law enforcement and other organizations as deemed appropriate by the IT Director.

For investigative purposes the IT Director has the responsibility to authorize monitoring or scanning activities for network traffic, application and data access, user commands; email and Internet usage, and message data content for the COH IT systems and data.

The use of keystroke logging is prohibited, except when required for security investigations, law enforcement investigations and approved in writing by the department head.

The COH will monitor infrastructure in order to maintain a security environment. The standards for infrastructure monitoring are as follows:

IT will monitor systems for secure baselines and policy compliance.

Infrastructure monitoring includes penetration testing, user audit trails, logging, change management approvals, intrusion detection, user behavior anomalies, repeated failed log-in attempts, etc.

IT may at anytime install new tools to better monitor COH services.

Installing or using unauthorized monitoring devices is prohibited.

Departments managing their own servers or infrastructure shall notify IT of the monitoring tools being utilized.

Internet Privacy – The Code of Virginia requires every public body in the Commonwealth that has an Internet website to develop an Internet privacy policy and an Internet privacy policy statement that explains the policy to the public and is consistent with the requirements of the code. The COH shall have an Internet policy posted on the website where it is easily accessed by citizens.

AUDITING

Security audits are periodically conducted to check the effectiveness of all the components of the IT security program. These audits can be for just IT or as part of a specific departmental audit. The IT Department will participate in and be the point of contact for all City audits relating to IT security. In addition, the IT Governance Board can direct Security audits to be performed on any and all IT systems in the COH. IT Security audit findings will be reported to the IT Governance Board and any other appropriate departments. A corrective action plan will be devel-





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ped by the IT department and submitted to the IT Governance Board and any appropriate department heads and managers.

Attachment A

IT Security Responsibilities for Departments Owning and Managing IT Infrastructure and Critical Systems

The City of Hampton has several business areas that own and manage major and critical IT systems and services that support citizens and the City's business processes. These departments include but are not limited to:

- 1. Hampton Police
- 2. Library
- 3. Public Works
- Conventions and Visitor's Bureau
- 5. Social Services
- 6. Coliseum
- 7. Economic Development
- 8. Parks & Recreation
- 9. Health Department

Others as appropriate

Departments with their own systems and services must develop and implement appropriate security policies and procedures in keeping with the City's security policy and in line with their business risk.

Department IT Manager & Staff Responsibilities

Develops policies, procedures and standards for assessing the security risks, determining the appropriate security measures and performing security audits of departmental IT assets in consultation with the City's IT Department.

Administers and maintains the department's IT Security Program

Provides solutions, guidance and expertise on IT security to departmental management and directors

Maintains awareness of the security status of sensitive systems

Prepares, disseminates and maintains IT security policies, standards, guidelines and procedures as appropriate within their department. Provides copies and updates of security policies, standards and guidelines with the City's IT Depart-





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ent.

Collects data relative to the state of IT security in the department and communicating risks to departmental management and the City's IT Department.

Coordinates and provides IT security information to the department users

Develops and tests annually an IT Disaster Recovery plan for critical systems under their control and reports findings to the City's IT Director.

Follows all IT security policies and standards in this document as they pertain to systems under their control

Manages risk and develops any additional IT security policies and procedures required to protect the system in a manner commensurate with risk.

Designates a system administrator for the system(s)

Promotes IT security safeguards and assists in the enforcement of this policy and the Acceptable Use Policy

Supports and facilitates the communications process between the IT department and departmental users

Promotes IT security awareness programs and enables employees to carry out their responsibilities for securing IT systems and data

Data Owner – The data owner is responsible for the same tasks as specified in Section 2.4 of this policy.

System Administrator – The system administrator is responsible for the same taks as specified in Section 2.5 of this policy

IT System Users – the system users have the same level of responsibility as specified in Section 2.6 of this policy.

IT SECURITY PROGRAM COMPONENTS AND STANDARDS

Departments managing their own IT systems and infrastructure will put in place a security program with the following components and standards. The program will be developed and implemented in consultation with the City's IT Department.

Risk Management – The department will conduct an IT Risk Assessment every three years. Standard for Risk Assessments will include the following components:

- a. Inventory IT Assets and Critical Systems
- b. Assess Data Center Vulnerabilities
- c. Confirm Disaster Recovery Plan (DRP) within the business context
- d. Assign Priorities of Assets
- e. Document, Track and Manage Risks





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isk Assessment reports will be presented to the City's IT Director who in turn will review the findings with the IT Governance Board with recommendations from the IT Director. The IT Governance Board will provide guidance, direction and approve recommendations to reduce risks.

Contingency and Disaster Recovery Planning –Departments managing their own systems will adhere to the city's standards for DRP, back up and restoration as follows:

- Critical data is incrementally backed up daily and a copy is stored in off site in a secure location accessible by the Department's management and the City's IT staff.
- b. A full back up of critical data is completed weekly and a back up copy is stored outside of Hampton's flood zone in a secure location accessible by the Department's management and the City's IT staff.
- c. A disaster recovery plan for all critical systems should be in place
- e. Testing of the disaster recovery plan will be on a component basis and will occur annually or as necessary.
- f. Tests of back up restorations will take place where it is feasible and does not put production systems at risk.

IT System Security – All system security is managed by the department's designated department IT managers and administrators in consultation with the City's IT Department. Departments will inform IT of all designated department administrators and their contact information. Departments managing their own IT systems are subject to the following IT system security standards and the City's Acceptable Use policy.

IT system security standards are as follows:

- All servers and desktops shall have the currently supported standard Antivirus software installed.
- b. All servers will be patched on a regular basis
- c. Support contracts for critical assets should be maintained and provide for the level of service necessary to support the business criticality of the system
- d. UPS and redundant power should be installed on all systems that are deemed to support critical systems
- e. Password procedures shall be implemented and the password strength policy should be based on the sensitivity of the data being protected. Strong passwords and forced password changes on at least a 90 day basis should be used for systems with sensitive data. Default passwords shall never be used. Passwords shall not to be shared for any reason.
- f. User accounts shall be unique to the individual. Shared accounts should only





IT-021 IT Security Policy

- e used on an exception basis as approved by the City's Information Technology Director.
- g. Users will not have administrative rights on PCs. Users needing this capability must contact the Department's IT Manager with a justification and must be adequately trained to ensure proper security controls. Department managers will also notify the City's IT department of users with administrative rights on PCs.
- h. Users dialing in with PC software are to notify their Department's IT Manager and the City's Department of Information Technology and register their connection to prevent unauthorized access.
- i. The department has an established process to identify and evaluate threats and assign appropriate action based on risks.
- Firewalls must be implemented where appropriate and have security logging turned on.
- k. Departments will deploy a multi-layered protection at the Internet gateway, the network server and desktop levels to prevent the introduction of malicious code into the system.
- System and/or data access must be explicitly granted to personnel by the system or data owner. Departments will put procedures in place to explicitly grant access. A periodic review of access to systems by individual users of the data will be conducted by IT, the Department's IT Manager and the Department Data Owner. Default access will not be allowed.
- m. Departments that manage their own servers will limit server admin rights to only specific individuals with a high level of technical and security knowledge. The IT Director will provide guidance and recommendations to departments on the skills and knowledge needed by server administrators. The list of server administrative staff in other departments will be maintained by the IT department engineering staff.

Facilities Security - Standards for facilities are as follows:

- a. Mission critical system facilities must be located in a secure location that is locked and restricted to authorized personnel only.
- b. Access to critical computing hardware must be controlled by rules of least privilege.
- c. System configurations (Hardware, wiring, displays, and networks) or critical systems must be documented. Installations and changes to those physical configurations must be governed by a formal change management process.

Personnel Security – Security standards below apply to personnel:

Separation of duties and least privilege principles shall apply to all critical systems and





IT-021 IT Security Policy

o other systems where appropriate. In cases where there are not the personnel or processes available to support this, additional monitoring and logging will be applied. Separation of duties refers to dividing roles and responsibilities so that a single individual cannot subvert a critical process. Least privilege refers to granting a user only those accesses that they need to perform their official duties.

Background screening for all employees will take place as per the Human Resources policy. Departments may perform their own additional screenings as desired. An additional procedure for approving IT contractors will be in place.

System and/or data access must be explicitly granted to personnel by the system or data owner and not allowed by default. Department data owners will have procedures and controls in place to track system access.

Access must be terminated concurrent with when the requirement for access no longer exists, i.e., termination, transfer, promotion, retirement, or change of duties. Departments will have procedures in place to ensure the timely and accurate termination of access.

Incident Management – The standards below apply to security incident management.

The department will have in place an incident process which identifies the responsibilities and actions to be taken in response to incidents. Security incidents that have the potential to disrupt City services will also be communicated to the City's IT department.

Information on how and when users report incidents will be periodically sent to users to reinforce use of the process.

IT Asset Management The IT standards for the asset management are as follows:

Change control processes will be in place and documented

Software licenses will be managed and be in compliance with contractual and legal obligations and terms. Illegal and unlicensed (unless in the public domain) software will not be allowed.

Departments downloading software from the Internet will be responsible to ensure that legal terms are met and adhered to. Department IT Managers will maintain a list of new software downloads and purchases.

Physical IT assets will be tracked and a record of the asset will be maintained Departments managing infrastructure will maintain up to date configurations of servers, software, networks and other critical system components.

The IT Department will approve all servers, software, configurations and network access of systems that access and/or utilize COH network resources.

Application Security - The IT standards for the City application security are as follows: Departments will maintain copies of software applications contracts, maintenance





IT-021 IT Security Policy

greements, software changes, upgrades, configurations, source code, up to date vendor contacts and escalations, and other critical information to the maintenance and operation of the application.

A list of all departmental applications will be maintained by the department's IT Manager with appropriate contact information. This list will be shared with the City's IT department on a periodic basis.

Application system administrators will be identified and properly trained on the operation of the system and the processes for changes and updates. The department's IT manager will maintain a list of application system administrators that will be shared with the City's IT department on a periodic basis.

Departments will develop secure processes for granting application access to only appropriate users.

Monitoring - The standards for infrastructure monitoring are as follows:

Departments will monitor systems for secure baselines and policy compliance. Infrastructure monitoring includes penetration testing, user audit trails, logging, change management approvals, intrusion detection, user behavior anomalies, repeated failed log-in attempts, etc.

Departments managing their own servers or infrastructure shall notify IT of the monitoring tools being utilized.

AUDITING

Departments will participate in and be the point of contact for all audits relating to IT security of their departments. In addition, the IT Governance Board and/or the City's IT Director can direct Security audits to be performed on any and all departmental IT systems in the COH. IT Security audit findings will be reported to the IT Governance Board and any other appropriate departments. A corrective action plan will be developed by the department and submitted to the IT Director and the IT Governance Board and any appropriate department heads and managers.





IT-022 Mobile Device Policy

PURPOSE: This purpose of this policy is to define the procedures, organizational and employee responsibilities, standards and acceptable use for wireless handheld devices for the City of Hampton. This policy applies to all related devices and includes primarily cell phones and Personal Digital Assistants (PDAs) that are either owned by the City or owned by employees who receive a stipend for the use of personal devices.

This policy applies to all City employees, elected officials, and appointees of the City Council who participate in the program.

POLICY: City-owned equipment is to be used for City business purposes in a responsible efficient, ethical, and legal manner in accordance with the mission of the City. City cellular and PDA equipment and stipends are provided to employees who have a routine and continuing business need for the use of wireless devices while conducting official City business. Service usage and stipends are to be set at the minimum level that fulfills the business need.

Equipment Options: The City offers two options for wireless device capabilities:

The City will own, operate and provide equipment, services and network connectivity for the service. This will be known as the **City Owned Option**.

Department Head responsibilities:

- The need for each wireless device is clearly justified for City business purposes.
- Alternative solutions for work production and communication have been considered.
- Employees provided with City equipment and stipends understand the purpose and limitations of usage.
- Detailed equipment usage billings are received and reviewed for conformance with this policy.
- Employees reimburse the City for non-business usage.
- Use of City equipment and related accounts are terminated when no longer justified by business requirements or when the employee has by actions demonstrated a disregard for the limitations of this policy.
- Participating employees are educated on the proper and safe use of wireless devices.
- The City will provide a stipend to employees who use personal mobile devices and services. This will be known as the Employee Owned Option. If this option is chosen, the IT department must approve the specific device and connection type. However, the City's IT department will not technically support third-party wireless hardware or software, or any other non-





IT-022 Mobile Device Policy

Department Head responsibilities:

- The need for the employee subsidized wireless device is clearly justified for City business purposes.
- Alternative solutions for work production and communication have been considered.
- Employees awarded stipends understand the purpose and limitations of usage.
- Stipends are terminated when no longer justified by business requirements or when the employee has by actions demonstrated a disregard for the limitations of this policy.
- Participating employees are educated on the proper and safe use of wireless devices.

Freedom of Information Act (FOIA) Application: Communications records and data stored, sent or received for the purpose of conducting City business are subject to the FOIA and apply to both the City owned and employee owned options.

Operating Motor Vehicles:

Texting while driving - Texting while operating a motor vehicle will not be allowed at anytime. Except as specified in the Code of Virginia Chapter 661 section 46.2-1078.1. Exemptions for public safety are specified in this code section and will apply within the City of Hampton.

Talking while driving – Talking on mobile devices while driving is not recommended at anytime. Department heads should develop procedures for their department personnel to limit the risk of accidents and also ensure that city services continue. All drivers are encouraged to pull off the road and park in a legal location before dialing or talking on mobile devices. If emergency or other business requires an employee to talk on a mobile device while driving the following policy applies:

- Drivers that need to talk while in motion shall use hands free features and devices.
- Numbers and contacts should be preprogrammed or use voice commands to minimize numbers being dialed while in motion.
- Users should be familiar with all the voice features on their mobile devices and use any quick dialing features like caller ID, last dialed number, etc. to minimize numbers being dialed while driving.

Exceptions:

Mobile and portable, two-way radio and push to talk features on devices Emergency vehicles as defined in Code of Virginia Chapter 661 section 46.2-1078.1





IT-022 Mobile Device Policy

Equipment: The IT department approves and procures the equipment that is owned by the City and connects to the City data network infrastructure. The IT department will provide a listing of approved equipment on the Intranet and update the list periodically. The IT department will also evaluate equipment and services not on the approved listing and make exceptions as appropriate.

The IT department will also provide an approved list of PDA devices for the employee owned options. Employee owned equipment may be limited in City application capabilities. Some current and future applications will not be available through personal PDA devices and employees and supervisors need to assess these requirements. Employees and Department Heads will be responsible for determining if the features and functionality of an employee owned option meets the business needs of the department. IT will be available to consult with departments on approved device capabilities. Although the IT department will provide configuration information to the employee, it is the employee's responsible for configuring and managing individual devices and connecting to the City's e-mail services. The IT department will not install, configure or test employee owned devices, provide training, research or references for non-City owned equipment or services. The IT department will not provide customized programs, processes, software or resources to enable full feature network and application capabilities to employee owned devices.

Acceptable Use and User Responsibilities:

Reasonable physical security measures must be followed. All devices should be secure at all times so as not to subject the unit to theft, loss, or damage.

- If a City owned wireless device is lost, the employee should immediately notify the IT department help desk who shall contact the vendor and other appropriate contacts, so that the device can be deactivated to prevent fraudulent use.
- If an employee owned device is lost, the employee should immediately notify the vendor, supervisor and the IT department help desk. The employee will instruct the vendor to deactivate the number to prevent fraudulent use. The supervisor will stop stipend payments until the device is replaced.

Employees should use the devices in a manner that promotes positive public opinion.

The following are unauthorized uses of city owned wireless equipment:

Any call, e-mail message, data transaction, or Internet query that could reasonably be made from a standard desktop or other electronic communication that would not impact customer service and is available at a lesser cost.

Any use of the device made in relation to an employee's personal business enterprise. Any use for the purpose of personal entertainment such as 900 numbers or movie links,





IT-022 Mobile Device Policy

Bay, iTunes, personal social networking, pictures, shopping internet surfing, etc. Any excessive use, abuse of service, or use of unreasonable duration.

Use at any time by anyone other than the employee.

The IT department may refuse to connect employee owned PDA devices to City and City-connected infrastructure if it feels such equipment is being used in a way that puts the City's systems, data, users, and/or citizens at risk.

Prior to initial use on the City network or related infrastructure, PDA devices must be registered with the IT department and the employee's department.

Employees using PDA devices and related software for City e-mail, network and data access will use secure data management procedures. All PDA devices creating, saving, accessing or transmitting sensitive data must be protected by a password. Sensitive data includes health information, citizen personal data, employee personal data, personnel matters, contract or negotiation information and/or anything that could be deemed confidential City information and/or communications. Employees will never disclose passwords to anyone.

The IT department will manage security policies, network, application, and data access centrally using whatever technology solutions it deems suitable. Any attempt to contravene or bypass this security implementation will be deemed an intrusion attempt and will be dealt with in accordance with City's overarching security policy.

Employees using personal PDA devices will permanently erase City-specific data from such devices once it is no longer required or the employee leaves City employment. City specific data includes all sensitive data defined above as well as data that is deemed critical to the operation and management of the City's services and that having the data outside of the control of the city will compromise security, city operations and/or the privacy of employees and citizens.

Employees that store City records on their PDAs that have retention requirements identified in the City's records manual will ensure that these records are copied and stored on the appropriate City network storage systems for retention purposes.

All data, e-mail, contacts, pictures, videos or other electronic data created, received or stored on mobile devices as a result of conducting official city business will be the property of the City of Hampton. Employees will not transmit city data to non-city entities without prior approval by their supervisor. This applies to the employees personal or city issued device.





IT-022 Mobile Device Policy

epartment Heads will notify IT of employees departing the City who have wireless devices as soon as possible so the IT department can coordinate device transitions effectively.

PROCEDURE: The City Owned Option requires payment for the wireless devices, employee reimbursement for personal use and an annual review of business needs for the wireless equipment. The Employee Owned Option requires determining the stipend amount, notification to the IT and Finance departments and employee responsibilities for purchase, service and contracts with the wireless service provider.

City Owned Option

Payment for City wireless devices covered by the City's master contract is made by the IT department and charged back to City departments. All non-master contract acquired equipment must be paid directly by the department through normal acquisition and payment processes. Reimbursement by employee for personal use (in the event of special circumstances or emergencies):

- The Department Head will calculate the amount of reimbursement required and will notify the employee in writing. The written notification will clearly show the calculation and will be accompanied by a copy of the monthly bill.
- The employee will deliver to the Department Head the required reimbursement in the form of a personal check payable to "City of Hampton" within one week from the date of notification.
- The Department Head will deliver the reimbursement and a request for expenditure refund to the Treasurer.

The employee's manager or supervisor will review actual usage annually with the employee to determine if a different equipment usage account more nearly matches the employee's recurring business needs.

Employee Owned Option

If the Department Head determines that a stipend is a cost effective alternative to providing City owned service and identifies a funding source, a monthly stipend for employees to cover business related use of a personal wireless device(s) can be awarded Stipend amounts are as follows:

Voice Only Stipend Rates:

\$66/month, based on 1800 minutes of projected usage \$50/month, based on 1350 minutes of projected usage





IT-022 Mobile Device Policy

33/month, based on 900 minutes of projected usage Voice and Data Stipend Rates:

\$106/month, based on 1800 minutes of projected usage \$90/month, based on 1350 minutes of projected usage \$73/month, based on 900 minutes of projected usage

Department Heads may also choose to reimburse employees for calls made on their personal devices to conduct city business. This is appropriate for incidental and infrequent use of personal devices. The rate for reimbursement is \$.25 per minute. The Finance Department will provide procedures on the processes and documentation required of departments and employees for reimbursing employees using the per call reimbursement option.

Responsibilities:

Department

The Department Head will notify the Finance and IT departments when an employee discontinues participation in the program for any reason.

The department will maintain a listing of all wireless devices and notify the IT Department as changes are made.

Finance Department – The Finance Department will provide procedures on the processes and documentation required of departments and employees for reimbursing employees using the stipend option.

Employee

The employee must provide the department with the current cellular telephone number.

The employee shall bear all expenses associated with the purchase, maintenance and replacement of all equipment.

The employee is responsible for any agreements or contracts established with the wireless service provider.





IT-022 Mobile Device Policy

mployee acknowledgement:

I have read and understand all the provisions in this policy. I understand that any conduct that violates this policy may result in disciplinary action up to and including dismissal depending on the nature of the infraction.

I am using my personal mobile device for business use	
I am using a city issued mobile device for business use	
Employee Name:	
Employee Signature:	
Date:	





IT-023 Social Media Policy

PURPOSE

City of Hampton departments may utilize social media and social network sites to further enhance communications with various stakeholder organizations in support of City goals and objectives. City officials and City organizations have the ability to publish articles, facilitate discussions and communicate information through various media related to conducting City business. Social media facilitates further discussion of City issues, operations and services by providing members of the public the opportunity to participate in many ways using the Internet.

POLICY

- 1. All City of Hampton social media sites shall be (1) approved by the Director of Information Technology and the requesting Department Head; (2) published using approved City social networking platform and tools; and (3) administered by the Department of Information Technology Web Team or their designee. Designees can be any department employee or volunteer designated by the requesting Department Head that has a complete understanding of this policy and has appropriate content and technical experience.
- 2. All City of Hampton social networking sites shall adhere to applicable state, federal and local laws, regulations and policies including all Information Technology and Records Management City policies and other applicable City policies.
- Freedom of Information Act and e-discovery laws and policies apply to social media content and therefore content must be able to be managed, stored and retrieved to comply with these laws.
- 4. City of Hampton social networking sites are subject to Library of Virginia's (LVA) public records laws. Relevant City of Hampton and (LVA) records retention schedules apply to social networking content. Records required to be maintained pursuant to a relevant records retention schedule shall be maintained for the required retention period in a format that preserves the integrity of the original record and is easily accessible using the approved City platforms and tools.
- 5. All social network sites and entries shall clearly indicate that any articles and any other content posted or submitted for posting are subject to public disclosure.
- 6. Content submitted for posting that is deemed not suitable for posting by a City of Hampton social networking moderator because it is not topically related to the particular social networking site objective being commented upon, or is deemed prohibited content based on the criteria in Policy –Item 9. of this policy, shall be retained pursuant to the records retention schedule along with a description of the reason the specific content is deemed not suitable for posting.





IT-023 Social Media Policy

- 7. The City reserves the right to restrict or remove any content that is deemed in violation of this policy or any applicable law.
- 8. Each City of Hampton social networking site shall include an introductory statement which clearly specifies the purpose and topical scope of the blog and social network site. Where possible, social networking sites should link back to the official City of Hampton Internet site for forms, documents and other information.
- 9. City of Hampton social networking content and comments containing any of the following forms of content shall not be allowed for posting:
 - a. Comments not topically related to the particular site or blog article being commented upon;
 - b. Profane language or content;
 - C. Content that promotes, fosters, or perpetuates discrimination on the basis of race, creed, color, age, religion, gender, marital status, status with regard to public assistance, national origin, physical or mental disability or sexual orientation:
 - d. Sexual content or links to sexual content;
 - e. Solicitations of commerce;
 - f. Conduct or encouragement of illegal activity;
 - g. Information that may tend to compromise the safety or security of the public or public systems; or
 - h. Content that violates a legal ownership interest of any other party
- 10. All City social networking moderators shall be trained regarding the terms of this City of Hampton policy, including their responsibilities to review content submitted for posting to ensure compliance with the policy.
- 11. All social networking sites shall clearly indicate they are maintained by the City of Hampton and shall have City of Hampton contact information prominently displayed.
- 12. Where appropriate, City IT security policies shall apply to all social networking sites and articles.
- 13. Employees representing the City government via social media outlets must conduct themselves at all times as a representative of the City and in accordance with all human resource policies. See Attachment C–Employee Guidance for Participating in Social Networking.
- 14. Employees found in violation of this policy may be subject to disciplinary action, up to and including termination of employment.





IT-023 Social Media Policy

ATTACHMENT A. Definitions—Social Media

For the purpose of this City of Hampton Social Media Policy, the following terms are defined as provided below:

- Social Media: Social media is content created by individuals using accessible and scalable technologies through the Internet. Examples of social media include Facebook, blogs, MySpace, RSS, UTube, Second Life, Twitter, LinkedIn, Delicious, Flicker, etc.
- Blog: (an abridgment of the term web log) is a City of Hampton website with regular entries of commentary, descriptions of events, or other material such as graphics or video.
- City of Hampton author: An authorized City of Hampton official that creates and is responsible for posted articles and information on social media sites (see article below).
- 4. Article: An original posting of content to a City of Hampton social media site by a City of Hampton author.
- Commenter: A City of Hampton official or member of the public who submits a comment for posting in response to the content of a particular City of Hampton article or social media content.
- 6. Comment: A response to a City of Hampton article or social media content submitted by a commenter.
- 7. City of Hampton moderator: An authorized City of Hampton official, who reviews, authorizes and allows content submitted by City of Hampton authors and public commentators to be posted to a City of Hampton social media sites.





IT-023 Social Media Policy

ATTACHMENT B. Blog & Public Commenting Standards

Comments submitted by members of the public must be directly related to the content of the articles. Submission of comments by members of the public constitutes participation in a limited public forum. City of Hampton blog moderators shall allow comments that are topically related to the particular article being commented and thus within the purpose of the limited public forum, with the exception of the prohibited content listed in Policy - General - Section 9 above. Author and Commenter Identification

- 1. All City of Hampton blog authors and public commentators shall be clearly identified. Anonymous blog postings shall not be allowed.
- 2. Enrollment of public commentators shall be accompanied by valid contact information, including a name, address, and email address.

Ownership and Moderation

- 1. The content of each City of Hampton blog shall be owned by and the sole responsibility of the department producing and using the blog.
- 2. Documents and articles submitted to a City of Hampton blog shall be moderated by an authorized and trained blog moderator.

Blog Comments & Responses

- 1. All blog articles and comments shall be reviewed and approved by an authorized blog moderator before posting on a City of Hampton blog.
- 2. All blog articles and comments submitted for posting with attached content shall be scanned using antivirus technology prior to posting.
- 3. The linked content of embedded hyperlinks within any City of Hampton blog articles or blog comments submitted for posting shall be evaluated prior to posting. Any posted hyperlinks shall be accompanied by a disclaimer stating that the City of Hampton guarantees neither the authenticity, accuracy, appropriateness nor security of the link, web site or content linked thereto.





IT-023 Social Media Policy

ATTACHMENT C. Employee Guidance for Participating in Social Networking

The City of Hampton understands that social networking and Internet services have become a common form of communication in the workplace and among stakeholders and citizens. Social networks are online communities of people or organizations that share interests and/or activities and use a wide variety of Internet technology to make the interaction a rich and robust experience. Employees that choose to participate in social networks as a City employee should adhere to the following guidelines.

- City policies, rules, regulations and standards of conduct apply to employees that engage in social networking activities while conducting City business. Use of your City email address and communicating in your official capacity will constitute conducting City business.
- 2. City employees shall notify their supervisor and the IT department if they intend to create a social networking site or service to conduct City business.
- 3. Departments have the option of allowing employees to participate in existing social networking sites as part of their job duties. Department Heads may allow or disallow employee participation in any social networking activities in their departments.
- 4. Protect your privacy, the privacy of citizens, and the information the City holds. Follow all privacy protection laws, i.e., HIPPA, and protect sensitive and confidential City information.
- 5. Follow all copyright laws, public records laws, retention laws, fair use and financial disclosure laws and any others laws that might apply to the City or your functional area.
- 6. Do not cite vendors, suppliers, clients, citizens, co-workers or other stakeholders without their approval.
- 7. Make it clear that you are speaking for yourself and not on behalf of the City of Hampton. If you publish content on any website outside of the City of Hampton and it has something to do with the work you do or subjects associated with the City, use a disclaimer such as this: "The postings on this site are my own and don't necessarily represent the City's positions or opinions."
- 8. Do not use ethnic slurs, profanity, personal insults, or engage in any conduct that would not be acceptable in the City's workplace. Avoid comments or topics that may be considered objectionable or inflammatory.
- 9. If you identify yourself as a City employee, ensure your profile and related content is consistent with how you wish to present yourself to colleagues, citizens and other stakeholders.
- 10. Correct your mistakes, and don't alter previous posts without indicating that you have done so. Frame any comments or opposing views in a positive manner.
- 11. Add value to the City of Hampton through your interaction. Provide worthwhile informa-





IT-024 Records Manual

See the Records Manual at the City's Intranet

http://cityhall/edm/pdfs/records management manual.pdf





IT-025 E-Discovery Policy

Coming in FY11

Our Mission



IT-026 Document Editing and Formatting Standards

Purpose

The following section lists those areas of document creation and formatting that are required for effective and efficient electronic storage of documents. For example, file and folder naming conventions are key to maintaining well-organized electronic directory and drive structures. Naming records consistently, logically and in a predictable way will distinguish similar records from one another at a glance, and by doing so will facilitate the storage and retrieval of records, which will enable users to browse file names more effectively and efficiently. Likewise, dating and page numbering documents, listing version/revision numbers will greatly aid the management and retrieval of electronic records.

Policy

For files destined to become part of the electronic storage system, naming conventions are not an optional tool for staff use, and must be consistently applied and maintained from department to department on a daily basis. The records liaison will ensure appropriate naming conventions are being utilized. For all other files, utilizing the standards will still provide benefits. Dating and page numbering documents, for example, are invaluable in reviewing or discussing documents within teams.

The following elements must be incorporated into all documents, including letters, brochures, forms, memorandum, plans, etc. All document types are included regardless of whether or not they have been specifically listed in this policy.

Date
Document Name
Page Number
Version Number/Date or Revision Number
Forms
Dating of Notations

Procedure

Date: The date of your document must be in a conspicuous location. For letters and memorandum the date must be at the top (Departments should use the templates provided). For other documents, the date should be located in the most commonly accepted location (i.e., the legend located on the right side or bottom right corner for plans and drawings).

Document Name: All documents must be named; this is done regardless of their format or the applica-





IT-026 Document Editing and Formatting Standards

ion used to create them. For files destined to become part of the electronic storage system, the document name must include the elements outlined in Appendix G of the Records Management Manual. These will be the date, title, version if applicable and the type of document. For all other documents, these standards should be followed the greatest extent possible, but at a minimum document titles must be indicative of their content and descriptive enough to be useful. Please refer to Appendix G for more specific information.

Page Number: The consistent application of page numbers will eliminate lost pages or uncertainty with knowing that a document is intact. Page numbers must be located in a conspicuous location, such as the bottom-right or bottom-center of a document. Please use the document header/footer options to maintain consistency with page number format and style. Include total number of pages (i.e., " $Page\ x\ of\ z$ ").

Version Number/Date or Revision Number: Document version number and date are essential to ensuring that the history of specific types of documents is intact and can be traced. Plans must always include a version number and the subsequent date of the revision. More specifically, subsequent versions of plans must include the history of versions and their dates as noted below:



Forms: Should also include a revision number in the lower right hand corner.

Notations: Handwritten notations on documents should also be dated particularly if the document will serve as a permanent record of city business.

The following templates are available for departments and located for download on the city's intranet web site at http://cityhall.hampton:

<u>Business Correspondence Resources (Letters and Memorandum)</u> <u>PowerPoint Resources for City Council Presenters</u>

Employees may make additional templates available for others by contacting the Records Manager.





IT-026 Document Editing and Formatting Standards

<u>Appendix G</u> provides specific instruction and examples of naming conventions while utilizing the Data Processing Standards provided in <u>Appendix A</u>.





IT-027 Data Imaging and Long-Term Maintenance Standards

Policy/Standard Reference:

Library of Virginia Document Imaging Guidelines

ISO - <u>Document Management - Electronic document file format for long term preservation - Part</u>
 1: Use of PDF 1.4 (PDF/A-1).

Standard:

Several industry standards surround digital imaging. These standards topics include:

Imaged format Copies of Originals as Evidence Quality Control Standards

Technology Standards including: risk, security and long-term maintenance of electronic formats

Imaged Format

The City's Document Management System allows for the use of a wide-variety of document formats. In order to accomplish numerous goals including day-to-day use by City staff, data integrity and long-term maintenance of electronic images two formats are recommended for long-term use and maintenance. Those being: TIFF and PDF/A.

Other formats such as Microsoft Office Applications may be used freely for non-permanent records and records with a retention period of less than 10-years.

Commonly used file formats are referenced in the <u>Library of Virginia's Digital Imaging Guidelines</u>.

Copies of Originals as Evidence

The <u>Code of Virginia, Section 8.01-391</u> allows for public records to be imaged, or reformatted, and maintained electronically. In addition, the imaged copy may be used as the record copy and the paper original can be destroyed.

In order to accomplish this, the Library of Virginia requires that a quality control process be in place "to certify that the imaged records are visually inspected for legibility and integrity, as well as an indexing system to allow for easy access and retrieval. If the records are considered vital a security copy of the images, indexing system and software application must be stored off-site."

Lastly, original records that have a permanent retention period must be offered to the LVA prior





IT-027 Data Imaging and Long-Term Maintenance Standards

o being destroyed.

Quality Control Standards

Quality control is conducted at various stages during the scanning process, and quality assurance must be conducted before the original documents are destroyed.

Quality control criteria includes verification of the:

image and index format compliance
overall image legibility
detail legibility capture and completeness of detail
dimensional accuracy compared with the original
scanner-generated speckle
image skew, rotation, and cropping
index data accuracy
density of solid black areas and completeness of overall image area

Quality Assurance

The quality control criteria must be used when performing quality assurance. The City is responsible for verifying the validity and accuracy of the overall delivered product and accepting that produce within a specified time-frame. The recommended time allotted for this activity is 45 -days.

The following options are available for departments when performing quality assurance on scanned documents:

Random sample: For documents with permanent retention where the paper will or must be retained **OR** for documents that do not fall under any of the Library of Virginia's retention schedule, this is an excellent method to assure quality. By selecting 1-5% of the total scaned documents and performing quality assurance on each page, the department may make a determination that the totality of scanned documents meet the quality control criteria.

Verify All: For documents with any specified retention period under any of the Library of Virginia's retention schedules, the LVA requires a 100% verification of original documents to scanned images when paper will be destroyed.

Technology Standards





IT-027 Data Imaging and Long-Term Maintenance Standards

Technology standards, records management standards and the City's Information Technology Department policies and procedures must be taken into consideration to allow for any risk mitigation and migration plans.

Risks/Security:

There are known risks associated with the recommended file formats, TIFF and PDF/A. Those risks specifically involve the ability to alter the image.

In order to mitigate this risk, the City's IT Department:

Controls access to City servers;

Audits the Document Management System for success and failure of edited images;

Requires individuals with Adobe software to lock PDF/A master documents prior to addition to the Document Management System for all city business records that are retained based on LVA retention requirements.

Performs end user and department awareness and education on the proper use of imaging software and the importance of controlling the use of software that could be used to alter image formats.

Migration:

The Records Management Program requires that electronic records with a retention period of ten (10) years or more be taken into consideration with long-term storage and strategy plans. This is done to reduce format obsolescence and ensure that retrieval of records from their original formats continues.





IT-028 Spam Procedures

Purpose: To streamline the processing of spam email for all IT staff and IT customers.

Policy: Spam email is commonly received by all email users. The City's Network staff process spam and all spam should be forwarded to them for handling.

Procedure:

When you or your customers receive copies of inappropriate email, please forward the email to spam@hampton.gov, and then delete the email. There's no additional value in forwarding these to the IT Helpdesk or other coworkers in IT.

The first time someone attempts to forward an email to "spam," the address probably will not resolve to spam@hampton.gov, but Outlook should present a list of options & spam@hampton.gov should be one of the options. If you haven't tried it before, please do, so you'll know what to tell customers to expect.

If it's easier for customers to remember, they can also forward the email to "Spam Report," which will end up in the same pot as those sent to spam@hampton.gov. The Spam account will capture the sender's userid and filter subsequent emails from that sender.

Please help educate our customers about spam filters. We subscribe to a service that continually updates itself based on known spam, but some spam will always get through until the filters pick it up. Forwarding the spam to the filter and then deleting the copy in your mailbox is the best first step to take in the battle.

If a particular spam is received on multiple occasions over the course of a month and the sender's id is exactly the same, then (and only then) you should send a copy to the helpdesk to evaluate.





IT-029 Revenue Systems Applications Security Procedure

Overview

Implementing security policies and best practices, improving user security awareness, and early detection and mitigation of security incidents are some of the actions taken to reduce the risk of security incidents. Security should be an integral part of new systems. When functional requirements are designed, security requirements should be formulated corresponding to the sensitivity and availability of data to be handled by the system.

2. Purpose

The purpose of the Revenue Systems Applications Security Procedure is to describe the requirements for developing and/or implementing software for the offices of the City of Hampton Commissioner of Revenue and Treasurer. This procedure is established in accordance with and as a supplement to Information Technology Security Policy # 09-005.

3. Applications Security Procedure

- 3.1 The Revenue Systems Team is responsible for developing, maintaining, and participat ing in a System Development Life Cycle (SDLC) for the offices of the City of Hampton Commissioner of Revenue and Treasurer. All software developed in-house which runs on production systems must be developed according to the SDLC. At a minimum, this plan should address the areas of preliminary analysis or feasibility study; risk identifica tion and mitigation; systems analysis; design; development; quality assurance and ac ceptance testing; implementation; and post-implementation maintenance and review. This methodology ensures that the software will be adequately documented and tested before it is used for critical City of Hampton information.
- 3.2 All production systems must have designated Owners and Custodians for the critical information they process. IT must perform periodic risk assessments of production systems to determine whether the controls employed are adequate.





IT-029 Revenue Systems Application Security Procedure

- 3.3 All production systems must have an access control system to restrict who can access the system as well as restrict the privileges available to these Users. A designated access control administrator (who is not a regular User on the system in question) must be assigned for all production systems.
- 3.4 Where resources permit, there will be a separation between the production, develop ment, and test environments. This will ensure that security is rigorously maintained for the production system, while the development and test environments can maximize pro ductivity with fewer security restrictions. Where these distinctions have been estab lished, the following applies:
- 3.4.1 The application deployment process will include two staff members as follows
- 3.4.1.1 A staff member that develops software code should not also deploy the code to production;
- 3.4.1.2 A staff member that did not develop the code should deploy code to production.
- 3.4.2 In instances where the separation of duties might not be viable for the City of Hampton
- 3.4.2.1 Emergencies The Solutions Development Coordinator overseeing the Commissioner of Revenue and Treasurer's system will sign off and review code before it is deployed to production.
- 3.4.2.2 When skill sets required to separate code development and production are not available with limited city resources Identify specific modules or applications where this is applicable and invoke item 3.4.2.1 of this procedure as an alternative.
- 3.5 All application-program-based access paths other than the formal user access paths must be deleted or disabled before software is moved into production.
- 3.6 Violations of this procedure must be reported to the IT Director or IT Security Manager.





Appendices

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Our Mission



GIS Strategic Plan

Background

There is a present need for a definitive guideline for departments and city staff to follow when incorporating GIS solutions within the organization.

Executive Summary

The GIS Strategic Plan is intended to set the course for elevating GIS to the enterprise level. Currently, GIS maintains a central GIS database, participates in a variety of special projects and initiatives, as well as produces hard copy map and digital data products. GIS is currently decentralized, with employees outside GIS that are able to access geographic data via a web interface and 12 employees that are able to generate maps and reports from the GIS database; storm water, sanitary, and traffic.

In the coming year, GIS will be focused on building a solid foundation from which to develop an enterprise GIS. GIS will be engaging other departments to identify and prioritize their needs. This plan is one of the first concrete steps toward elevating GIS to the enterprise level ensuring the City leverages the value of its GIS investment to its fullest potential.

This Strategic Plan is one step in building the foundation for an enterprise GIS that will allow members of every City department to access GIS data and tools. An enterprise GIS will allow departments to share data sets, rather than replicate them and will assist department staff in managing resources, assets and the environment and in serving citizens effectively and efficiently.

What Is GIS?

Geographic Information System (GIS) is a tool for linking and displaying graphical (spatial) data with tabular data. This combination allows for the creation of products and services that would be difficult, if not impossible to produce by other means. GIS allows for the management and analysis of large sets of information. In some instances, it is easier to interpret data when it is aggregated or displayed geographically. One feature of a GIS is the ability to take relational data containing the appropriate references or links (such as an address or parcel number) and represent it in a geographic context. GIS is increasingly important to support decision-making. The development and use of a GIS can be complex and expensive. To effectively overcome these, an organization must be committed to its GIS for the life of the system.





GIS Strategic Plan

What does an Enterprise GIS mean?

The purpose for this section is to present recommendations that allow the City to continue to develop its GIS program in a way that is consistent with department priorities, and guides the continued development and evolution of the City's GIS environment.

Enterprise or City-wide GIS in the context of this document implies the following:

- Executive level involvement and support for GIS technology. Includes identifying GIS as an agent for achieving objectives in Focus Area Strategy Plans, Business Plans, and budgetary support for Enterprise GIS initiatives and department-specific GIS priorities.
- Direct connection between GIS and the City's strategic objectives (Focus Area Strategy Plans).
- A corporate-level focus, driven by consensus, for guiding the direction of GIS investments (demonstrated by the adoption of the GIS Strategic Plan).
- GIS coordination between City departments and other governmental agencies
- Effectiveness improvements and cost avoidance realized by shared applications, hardware, software, personnel resources, and data.
- Applied use of GIS technology to improve business processes that span across the organization.
- Communication and education among users.

 References to "Enterprise" therefore speak to all City departments, encompassing their interests collectively versus individually.

GIS and Hampton - Current Role

The City of Hampton employees manage large and disparate data sets, many of which contain a spatial component, such as an address or location. GIS provides data management tools that utilize the geographic data to create meaningful information. From that information, creative solutions may be derived, making the best use of limited staff and financial resources. From those proposed solutions, City Managers can make confident, data-driven decisions.





GIS Strategic Plan

Mission Statement

The GIS Office manages the overall infrastructure of the City's Geographic Information System (GIS). Its primary purpose is to provide GIS technology access and technical support to all employees who use this tool to perform their work more efficiently. The GIS Office will leverage Hampton's existing data, infrastructure and expertise to implement the core elements of the enterprise GIS solution.

To achieve the goal of an Enterprise GIS for Hampton, the GIS Office will promote these core values:

Facilitating communication between the City, its employees, and the community that is open, honest, proactive and interactive in nature.

Providing reliable, timely, innovative, and cost-effective GIS solutions to the City organization so that the needs of both internal and external customers are successfully met.

Providing leadership, direction, and support in the organization-wide planning and coordination of GIS services.

Vision Statement

It is the vision of the GIS Office that the enterprise GIS Solution will continue to grow in value to the City and its various departments which in turn increases the level of service and cost effectiveness to the citizens of Hampton. The GIS Office will continue to develop through increased and improved functionality and by expanded and improved data sets.

Organizational Use

This Strategic Plan identifies five main organizational GIS uses. These uses contain current applications, future applications, and goals in implementing an enterprise GIS.

- 1. Managing the Data Infrastructure
- 2. Continuing Partnership with ESRI technologies
- 3. Third Party Software Administration
- 4. Serving the Organization
- 5. GIS Serving the Public





GIS Strategic Plan

Section 1: Managing the Data Infrastructure

The GIS Office supports many levels of the organization, from being the GIS entity during emergency operations activation, to supporting the enterprise with hard copy maps and analysis. The GIS Office serves as the keeper of GIS data within the City. This entails a refined process of creating, editing, and updating geographic and tabular data. Included in this responsibility are maintaining strict data standards, so that the enterprise can benefit from reliable data. Though many of the cities layers remain stagnant, several of the more dominant layers are parcel boundaries, street centerline, zoning boundaries, and addresses. The GIS Office is the cornerstone of address and street data for the 911, 311, and LDS Offices. A seamless integration with the GBA Infrastructure Management system provides Public Works Operations users with extended functionality. In striving to be an enterprise solution, all data is stored in a SDE geographic database. This provides the enterprise with the uniqueness of integration with geographic data. More recently, we have stepped into the 3D realm, by creating scaled models of strategic areas in the city; we can aide in the development and marketing process.

Future Statement

While constantly seeking to improve and add datasets to the GIS database, improving integration with all city offices will remain a constant for years to come. Careful analysis and planning will ensure useful outcomes for the enterprise use.

Goals

- Develop an addressing ordinance to better manage the existing addressing process
- Database integrations with 311, Revenue, Treasurer, Business, Planning, Assessor, and Economic Development Offices
- Continue with 3D initiative, as well as exploring newer 3D technologies potential use
- o Ensuring all possible spatial data is included in the GIS framework Making access to the data infrastructure possible for everyone





GIS Strategic Plan

Section 2: Continuing Partnership with ESRI technology

The Hampton GIS Office prides itself on being an ESRI house. ESRI serves as the foundation of GIS software in the United States. Being one of the first localities in the state to leverage ArcGIS Server technology, the GIS Office remains on the forefront of future ESRI technology. In addition, by being an ESRI house, we are assured of a seamless GIS software framework. The projected yearly maintenance of current software is \$24,000. Current licensing is as follows:

- ArcGIS Server (Includes Web Framework, ArcIMS, and ArcSDE)
 - ArcSDE: Spatial database housing the cities data and utilizes sql2000 (need the correct SQL #) technology, inline with most City databases.
 - ArcGIS Server: Provides the framework for all web applications and works with .NET technology.
- ArcINFO (4): All GIS creation, editing, management and analysis tools ArcView (3 and counting): Core GIS analysis tools. (need to confirm the count and reword this info)
- ArcReader (Free): Allows users to query and view current data maps made with ArcINFO.

Future Statement: Developing a plan that identifies GIS stakeholders within the organization then, achieving better management by transferring all current GIS software licenses in the city to a central account. Any licenses in the future would be purchased through the GIS office solely.

Goals:

- o Identify all GIS stakeholders within the enterprise.
- o Effectively communicate and document GIS software solutions and options to the enterprise Become the sole manager and facilitate all purchases of GIS software within the organization





GIS Strategic Plan

Section 3: Third Party Software Administration

The GIS office is currently the administrators of 3 Enterprise technologies that complement the existing GIS infrastructure.

- O Pictometry is unique software that captures oblique imagery form various distances and degrees. The overall purpose being to have an overhead, north, south, east, and west view of any property in the City. After a beta period, we will release the web interface for public consumption. A two year contract was signed in September of 2008, with a biannual budget of \$85,000.
- O Laserfiche technology makes scanned images available through a searchable interface. The scanned images available contain site, development, road, and utility plans, as well as subdivision plats.

Google Earth provides users with access to address, business, and location searching by utilizing national databases. This free, lightweight software provides an easy to use interface. By exposing the existing on-line help documentation and national datasets, then adding Hampton's discrete geographic data, we provide users of the software reliable data at no cost.

Future Statement

Integration of these applications into the city's existing GIS framework will prove beneficial to the enterprise. By utilizing a web interface for Pictometry, we are in a better position for the future. The company is switching from a desktop model to a web model in the near future; also a planned integration with ESRI technology is forthcoming. By adding Laserfiche and making scanned documents available via web interface to the intranet user, we can better serve users needing access to these documents. Utilizing Google Earth technology has already proven beneficial, staying the current course of frequent updates and added functionality will show continued success.

Goals:

Provide Pictometry to the organization in an easy to use web interface.

Bring Laserfiche to the organization through integration with existing GIS website.

Continue to support Google Earth by staying current with technology, adding additional layers.





GIS Strategic Plan

Section 4: Serving the Organization

As previously stated, the GIS Office serves an enterprise wide need for geographic information. Supporting a variety of departmental needs and adding the GIS element to many special projects and initiatives. Different departments have different needs and the following is a sample of uses across the enterprise:

Emergency Management: When the EOC office is activated the GIS office is part of the EOC staff. Providing hourly maps of 911 and 311 data to all EOC managers and staff gives the ability to see the overall picture as it happens. Remaining in contact the state EOC GIS representative provides information exchange and keeps us up-to-date and informed during an emergency. During the aftermath, collecting data and providing maps and analysis aides in the disaster management process.

Traffic Division: Recently, we have served a direct GIS need in the Traffic Division of Public Works. The office was in need of live infrastructure data and maps of the cities traffic network and basemap features. Since we already had database integration with the Public Works infrastructure, we only needed to set up a standard map for their use. Using ArcReader, they are now viewing, searching, and printing maps daily basis.

By offering the organization different levels of software options, we ensure the technology will be used efficiently. Our refined workflow allows us a very quick turn-around time on special projects.

Future Statement

As keeper of the data and the technology lead, we must analyze all GIS projects and initiation, therefore appropriating the proper resources when aiding all departments. In addition, increasing the GIS profile to the organization will prove added worth to the organization.

Goals:

- Raising the GIS profile to the enterprise level, will increase all aspects of GIS use with the city
- O Adding GIS to the IT project management phase, we can expect increased GIS awareness and properly serve the enterprise as needed Improve overall communication of GIS technologies to the organization.

Our Mission



GIS Strategic Plan

Section 5: GIS Serving the Public

Traditionally, the public has been served GIS in two forms. First, the GIS website enables access to geographic data in a searchable viewer. Secondly, the customer service aspect directly serves requests in person, by email, and through digital or printed PDF maps. Recent efforts have proved successful, even without promotion. Citizens have searched the web and discovered maps and searchable sites as evidenced by tracked website traffic. At the beginning of February 2007, we added 20 pre-made 8 x 11 pdf's for download on the city website. In one month's time the main page for these maps was accessed by over 600 unique individuals. Overall worth to the public is priceless.

Future Statement

Increasing the GIS profile with the public will add a valuable resource in public communication. At the same time, striving to promote strategic areas, and aiding in the development of Hampton's future.

Goals:

Printable maps prove to be a valuable asset to the public, by creating and utilizing the existing standardized mapping we can always be prepared for most public requests.

Creating an on-line data/ map request system can further streamline this process.





GIS Strategic Plan

The Ideal Enterprise GIS

In order for GIS to progress to the point that it can efficiently and effectively serve the needs of the City, GIS must transition from its reliance on hard-copy map production to designing, implementing and supporting an enterprise GIS data model. This direction raises questions about how different departments should access GIS data and how they can link the data that they currently manage to GIS data. In addition, department members may wonder how much GIS knowledge they will require in order to interact with GIS data. This Strategic Plan addresses those concerns, including ways that GIS will support departments with training and technical support along the way.

The progression to a more centralized model does **not** mean or require that every department needs to hire a GIS expert. What it does mean is that GIS will be focused on migrating data to a model that is easier to access for City employees and, soon, citizens too. As GIS stays current with the newest GIS software version and implements an Intranet GIS application, City employees will be able to serve many of their own GIS needs without expert knowledge of GIS. One goal of GIS is to develop applications that are easy-to-use for non-GIS professionals. GIS will assist departments in improving GIS-related data management, automating routine data entry tasks, implementing quality control tools, and ensuring that department data link to GIS data successfully.

For GIS to be successful, it will serve as a catalyst for the business process. Exactly what this will look like for each department has yet to be determined, as department needs vary. There are two main levels of GIS users: viewers and power users. Most City departments will utilize GIS data for viewing maps, querying information, and reporting. Only a few City staff will create and manipulate GIS data. This distinction of skill sets is significant, as many GIS viewers will utilize the City Intranet site and/or an easy-to-use customized application to access GIS data. GIS power users require a much higher level of GIS skills and experience. GIS is working with staff in each department to assess their GIS needs and to determine the best way to design GIS to meet their needs today and in the future.





Sample Memo for New Account Holders

MEMORANDUM

TO: Network Account Holder

FROM: Leslie Fuentes, Director of Information Technology

DATE: Month XX, 20XX

SUBJECT: Establishment of Your Internet Account

As an Internet, network and e-mail user you are subject to all laws, regulations and policies regarding network access and use. Read the policy carefully, which is available on the Internet. As a reminder:

Your account is to be used for your agency's business purposes only unless in accordance with personal use provisions as contained in the general policy on Internet use.

Treat the Internet as a formal communication tool just as you would the telephone, radio, video and written communications media. You are directly responsible and accountable for your actions and communications using the Internet.

At all times be respectful and responsive when communicating.

Understand that E-mail messages and any other transfer of information via the Internet must adhere to Virginia Public Records Laws relating to disclosure and retention of information. You are responsible for keeping hard copies of e-mail communications that would normally be sent in writing.

Do not share your password with anyone.

Learn the etiquette of the Internet regarding E-Mail, Newsgroups and List servers.

Do not pass on jokes, pictures or other potentially offending items.

Get training if you need it and stay current with new tools.

The use of a city Internet or e-mail account is a privilege granted to enhance the ability of users, increase their productivity and provide opportunities for professional growth. As a privilege, it must be understood and used with these goals in mind. Improper use will result in the cancellation of the Internet account and may lead to disciplinary action. Information Technology will generate periodic reports to audit account usage, determine continued need or advantage of the account, or evaluate benefits.

Once you have reviewed the policy, contact Information Technology if you have any questions.





Guidelines to Online Etiquette

- 1. Treat the Net as a formal communication tool just as you would the telephone, radio, video and written communications media. You are responsible and accountable for your actions and communications using the Internet.
 - 2. Understand that E-mail messages and any other transfer of information via the Internet must adhere to Virginia Public Records Laws relating to disclosure and retention of information. You are responsible for keeping hard copies of e-mail communications that would normally be sent in writing.
- 3. Make your "subject line" as descriptive as possible. A salutation after your "subject line" and before your message can be used to convey a sense of personal acknowledgment.
- 4. Appending your name at the end of the message is also considered good etiquette. If communicating with someone outside the system it is appropriate to sign your name and include your E-mail address.
- 5. Setup Outlook so that a copy of the message that you are answering appears in the body of your response.
- 6. Always acknowledge that you have received a document or a file someone has sent you.
- 7. Check your E-Mail at least once or twice a day if you are expecting replies. Delete e-mail once you have read it or save it to a personal file. Do not use the network server as a filing cabinet for out of date communications.
- 8. Do not "surf" on city time or while using city equipment and software.
- 9. When sending a file, give as much information as possible (length, type, and contents) and be considerate of the other party's storage capacity which may be limited or in some cases provided at a fee.
- 10. Do not send e-mails with attachments lager than 100K using a distribution list.
- 11. Conference and bulletin board messages are "showcases." Proofread and edit all messages, particularly since your communication is considered an official response from the city.
- 12. Be respectful and responsive when you are communicating. When answering the public, always ensure that a proper and timely response is provided even if given by other individuals within the city.
- 13. Do not be vulgar or offensive. Electronic text allows no context clues to convey shades of irony, sarcasm, or harmless humor.
- 14. Do not publicly (on bulletin boards or conferences) criticize (or "flame") other network users.
- 15. Protect other's privacy. Warning! Network communications are <u>not secured</u> and confidential information should not be used, sent, or attached as files for distribution purposes.
- 16. Do not share your password with anyone.





FY11 IT Performance Plans

See website for the FY11 Plan

http://wssvr/intranet/cityweb/departments/it/IT%20Polices/FY11%20IT% 20Plan.pdf

